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DRINKING WATER SURVEILLANCE PROGRAM

**GUELPH
WELL SUPPLY**

REPORT FOR 1991 AND 1992

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DWSP study

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**GUELPH WELL SUPPLY
DRINKING WATER SURVEILLANCE PROGRAM
REPORT FOR 1991 AND 1992**

MAY 1994



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EXECUTIVE SUMMARY

DRINKING WATER SURVEILLANCE PROGRAM

GUELPH WELL SUPPLY 1991 AND 1992 REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to include all municipal supplies in Ontario. In 1991, 96 supplies and in 1992, 109 supplies were being monitored.

The Guelph well supply is a groundwater source consisting of many wells in several aquifers. Raw water is disinfected before distribution. Iron sequestering is practiced at some wells when required. This supply has a maximum pumping capacity of $90.4 \times 1000 \text{ m}^3/\text{day}$. The Guelph well supply serves a population of approximately 90,000.

Raw water from 22 wells, treated water from 3 reservoirs and 2 locations in the distribution system was sampled for the presence of approximately 180 parameters. Parameters were divided into the following groups: bacteriological, inorganic and physical (laboratory chemistry, field chemistry and metals), organic (chloroaromatics, chlorophenols, pesticides and PCB, phenolics, polyaromatic hydrocarbons and volatiles) and radiological (radionuclides). Most laboratory analyses were conducted at the Ministry of the Environment and Energy facilities in Rexdale, Ontario. Radionuclides were analyzed by the Ministry of Labour.

Table A is a summary of all results by group.

No known health related guidelines were exceeded.

The Guelph well supply, as sampled by DWSP, for the sample years of 1991 and 1992, produced good quality water and this was maintained in the distribution system.

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A "0" INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	WOODS PUMP		ERAMOSA RIVER		ARKEL SPRING #6		ARKEL SPRING #7					
	TESTS	POSITIVE %POSITIVE	TESTS	POSITIVE %POSITIVE	TESTS	POSITIVE %POSITIVE	TESTS	POSITIVE %POSITIVE				
BACTERIOLOGICAL	21	12	57	4	4	100	12	1	8	12	0	0
CHEMISTRY (FIELD)	14	14	100	2	2	100	6	6	100	6	6	100
CHEMISTRY (LABORATORY)	169	125	73	47	42	89	72	55	76	94	68	72
METALS	168	49	29	48	15	31	96	34	35	96	30	31
CHLOROMATICS	77	0	0	14	0	0	42	0	0	42	0	0
CHLOROPHENOLS	0	0	0	0	0	0	0	0	0	0	0	0
PESTICIDES AND PCB	216	0	0	35	0	0	106	0	0	106	0	0
PHENOLICS	7	0	0	2	0	0	4	0	0	4	0	0
POLYAROMATIC HYDROCARBONS	102	0	0	0	0	0	0	0	0	0	0	0
SPECIFIC PESTICIDES	23	0	0	0	0	0	0	0	0	0	0	0
VOLATILES	203	0	0	60	0	0	120	0	0	120	1	0
RADIOISOTOPES	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1,000	200	212	63	465	98	214	107	214	107	214	107

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A "-" INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	ARKEL SPRING #8 PRETREATED			CARTER WELL PRETREATED			CLYBNE WELL PRETREATED			MEMBRO WELL PRETREATED		
	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE
BACTERIOLOGICAL	9	0	0	12	4	33	12	6	50	1	0	0
CHEMISTRY (FIELD)	6	6	100	6	6	100	6	6	100	-	-	-
CHEMISTRY (LABORATORY)	94	72	76	72	54	75	94	80	85	24	17	70
METALS	73	25	34	73	19	26	96	42	43	24	8	33
CHLOROCARBOXICS	42	0	0	42	0	0	42	0	0	0	0	0
PESTICIDES AND PCB	106	0	0	106	0	0	103	0	0	0	0	0
PHENOLICS	4	0	0	4	0	0	4	0	0	1	0	0
POLYAROMATIC HYDROCARBONS	-	-	-	-	-	-	-	-	-	0	0	0
VOLATILES	120	0	0	120	0	0	120	0	0	29	0	0
RADIONUCLIDES	7	2	28	7	2	28	7	2	28	-	-	-
TOTAL	461	105	442	85	484	136	440	25				

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A . . . INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	SILVERCREK WELL PRETREATED TESTS	POSITIVE	#POSITIVE	PAISLEY WELL RAW TESTS	POSITIVE	#POSITIVE	BURKES WELL PRETREATED TESTS	POSITIVE	#POSITIVE	CALICO WELL PRETREATED TESTS	POSITIVE	#POSITIVE
BACTERIOLOGICAL	12	8	66	27	0	0	9	0	0	12	0	0
CHEMISTRY (FIELD)	6	6	100	18	18	100	8	8	100	6	6	100
CHEMISTRY (LABORATORY)	94	74	78	214	178	83	94	74	78	94	80	85
METALS	73	33	45	216	103	47	96	32	33	96	38	39
CHLOROPHENOLS	42	0	0	112	0	0	28	0	0	28	0	0
CHLOROPHENOLS	-	-	-	6	0	0	-	-	-	-	-	-
PESTICIDES AND PCB	106	0	0	281	0	0	69	0	0	69	0	0
PHENOLICS	4	0	0	9	0	0	4	0	0	4	0	0
POLYAROMATIC HYDROCARBONS	-	-	-	119	0	0	0	0	0	0	-	-
SPECIFIC PESTICIDES	-	-	-	18	0	0	-	-	-	-	-	-
VOLATILES	120	0	0	265	0	0	120	0	0	120	0	0
RADIONUCLIDES	7	2	28	-	-	-	-	-	-	-	-	-
TOTAL	464	123	-	1,285	299	-	428	114	-	1,285	124	-

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A . . INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	DOWNY WELL PRETREATED TESTS	POSITIVE	HELMAR WELL PRETREATED TESTS	POSITIVE	PARK WELL PRETREATED TESTS	POSITIVE	QUEENSDALE WELL PRETREATED TESTS	POSITIVE
BACTERIOLOGICAL	12	0	0	7	0	0	12	1
CHEMISTRY (FIELD)	6	6	100	6	6	100	6	6
CHEMISTRY (LABORATORY)	94	72	76	71	61	85	94	70
METALS	96	43	44	72	30	41	96	48
CHLOROMATICS	28	0	0	14	0	0	28	0
PESTICIDES AND PCB	69	0	0	34	0	0	69	0
PHENOLICS	4	0	0	3	0	0	4	0
POLYAROMATIC HYDROCARBONS	.	.	.	0	0	0	.	.
VOLATILES	120	0	0	89	0	0	120	0
TOTAL	429	121	296	97	429	125	296	105

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A " " INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	U OF G WELL RAW TESTS	POSITIVE %	DEAN WELL PRETREATED TESTS	POSITIVE %	EDINBURGH WELL PRETREATED TESTS	POSITIVE %	EMMA ST WELL PRETREATED TESTS	POSITIVE %
BACTERIOLOGICAL	24	0	3	0	9	0	9	1
CHEMISTRY (FIELD)	16	16	4	4	4	100	4	4
CHEMISTRY (LABORATORY)	191	150	47	37	78	71	58	81
METALS	192	87	45	48	22	45	49	24
CHLOROPHENOLS	77	0	14	0	0	28	0	0
CHLOROPHENOLS	6	0	0	0	0	0	0	0
PESTICIDES AND PCB	202	0	36	0	0	70	0	0
PHENOLICS	8	0	2	0	0	3	0	0
POLYAROMATIC HYDROCARBONS	85	0	0	0	0	0	0	0
SPECIFIC PESTICIDES	28	0	0	0	0	0	0	0
VOLATILES	234	0	60	2	3	91	6	91
TOTAL	1,063	253	214	65	325	92	214	78

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A " " INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	SACCO WELL PRETREATED TESTS POSITIVE	%POSITIVE	SMALLFIELD WELL PRETREATED TESTS POSITIVE	%POSITIVE	WATER ST WELL PRETREATED TESTS POSITIVE	%POSITIVE	WOODS PUMP TREATED TESTS POSITIVE	%POSITIVE
BACTERIOLOGICAL	3	0	7	0	9	1	7	0
CHEMISTRY (FIELD)	4	4	6	6	4	4	32	25
CHEMISTRY (LABORATORY)	48	83	71	58	81	60	169	124
METALS	25	11	49	17	34	26	53	49
CHLORODROMATICS	14	0	28	0	0	0	77	0
CHLOROPHENOLS	"	"	"	"	"	"	6	0
PESTICIDES AND PCB	36	0	70	0	72	0	216	0
PHENOLICS	2	0	3	0	3	0	6	0
POLYAROMATIC HYDROCARBONS	0	0	0	0	0	"	102	0
SPECIFIC PESTICIDES	"	"	"	"	"	"	29	0
VOLATILES	60	7	91	5	91	2	203	22
TOTAL	192	62	325	86	327	93	325	220

TABLE A
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SUMMARY TABLE BY SCAN

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A "1" INDICATES THAT NO SAMPLE WAS TAKEN

SCAN	PAISLEY WELL TREATED		U OF G WELL TREATED		DIST. SYSTEM VICTORIA RD.		DIST. SYSTEM IMPERIAL RD N	
	TESTS	POSITIVE	TESTS	POSITIVE	TESTS	POSITIVE	TESTS	POSITIVE
BACTERIOLOGICAL	9	1	11	8	0	0	12	11
CHEMISTRY (FIELD)	45	39	86	40	36	90	86	85
CHEMISTRY (LABORATORY)	216	161	74	192	150	78	295	441
METALS	216	88	40	192	90	46	368	483
CHLOROCARBONICS	112	0	0	77	0	0	63	0
CHLOROPHENOLS	6	0	0	6	0	0	0	0
PESTICIDES AND PCB	281	0	0	214	0	0	103	0
PHENOLICS	9	0	0	8	0	0	0	0
POLYAROMATIC HYDROCARBONS	102	0	0	102	0	0	85	0
SPECIFIC PESTICIDES	30	0	0	29	0	0	3	0
VOLATILES	265	37	13	234	4	1	232	15
TOTAL	1,291	326	1,102	280	1,272	547	1,102	744

DRINKING WATER SURVEILLANCE PROGRAM

GUELPH WELL SUPPLY 1991 AND 1992 REPORT

INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to include all municipal supplies in Ontario. In 1991, 96 supplies and in 1992, 109 supplies were being monitored.

Appendix A has a full description of the DWSP.

The DWSP was initiated for the Guelph well supply in the summer of 1990. A previous annual report was published for 1990.

PLANT DESCRIPTION

The Guelph well supply is a groundwater source consisting of many wells in several aquifers. Raw water is disinfected before distribution. Iron sequestering is practiced at some wells when required. This supply has a maximum pumping capacity of $90.4 \times 1000 \text{ m}^3/\text{day}$. The Guelph well supply serves a population of approximately 90,000.

The sample day flows were reported for individual pumping stations and does not represent the total daily pumpage for the supply.

The F.M. Woods pumping station ranged from $13.6 \times 1000 \text{ m}^3/\text{day}$ to $38.8 \times 1000 \text{ m}^3/\text{day}$.

The Paisley Road well ranged from $2.9 \times 1000 \text{ m}^3/\text{day}$ to $8.5 \times 1000 \text{ m}^3/\text{day}$.

The University of Guelph pumping station ranged from $1.0 \times 1000 \text{ m}^3/\text{day}$ to $2.2 \times 1000 \text{ m}^3/\text{day}$.

General information for the water supply is presented in Table 1.

SAMPLING AND ANALYSES

Stringent DWSP sampling protocols were followed to ensure that all samples were collected in a uniform manner (see Appendix B).

Sample lines at the wells and reservoirs were flushed prior to sampling to ensure that the water obtained was indicative of its origin and not residual water standing in the sample line.

Municipal operating personnel routinely analyzed parameters for process control (see Table 2 if data is provided).

At all distribution system locations, two types of samples were obtained, a standing and a free flow. The standing sample consisted of water that had been in the household plumbing and service connection for a minimum of six hours. These samples were used to make an assessment of the change in the levels of inorganic compounds and metals due to leaching from, or deposition on, the plumbing system. The only analyses carried out on the standing samples, therefore, were laboratory chemistry and metals. The free flow sample represented fresh water from the distribution system main, since the sample tap was flushed for five minutes prior to sampling.

Raw water from 22 wells, treated water from 3 reservoirs (Woods Pump, Paisley Well, and U of G Well) and 2 locations in the distribution system was sampled for the presence of approximately 180 parameters. Raw water from the Eramosa River was sampled to monitor its effects on the infiltration wells. Parameters were divided into the following groups: bacteriological, inorganic and physical (laboratory chemistry, field chemistry and metals), organic (chloroaromatics, chlorophenols, pesticides and PCB, phenolics, polyaromatic hydrocarbons and volatiles) and radiological (radionuclides). Most laboratory analyses were conducted at the Ministry of the Environment and Energy facilities in Rexdale, Ontario. Radionuclides were analyzed by the Ministry of Labour.

RESULTS

Field measurements were recorded on the day of sampling and were entered onto the DWSP database as submitted by municipal personnel.

Table 3 (when data is provided) contains information on flow rate, and treatment chemical dosages.

Table 4 is a summary of all results by parameter and by water type. If a parameter was not detected, the total number of negative sample results is given. In contrast, if a parameter was detected at any location, the detailed results for all samples are provided.

In Table 4, a "pretreated" sample refers to a raw water sample collected prior to the addition of treatment chemicals where the treated water flows directly into the distribution system and a representative treated water sample could not be obtained.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment and Energy laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 lists all parameters analyzed in the DWSP.

Associated guidelines and detection limits are also supplied on Tables 4 and 5. Parameters are listed alphabetically within each scan.

DISCUSSION

GENERAL

Water quality was judged by comparison with the Ontario Drinking Water Objectives publication (ODWOs). When an Ontario Drinking Water Objective (ODWO) was not available, guidelines/limits from other agencies were used. These guidelines were obtained from the Parameter Listing System database.

The guidelines are evaluated on the results from the free flowing samples. Standing samples in the distribution system can show elevated concentrations in certain metals if the water is corrosive or if the standing time is excessive. Flushing the tap until the water achieves the coolest temperature will ensure that the water used for consumption will contain minimum concentrations of metals.

IN REPORTS FOR GROUND WATER SUPPLIES, WHERE:

- TREATMENT CAN BE LIMITED TO DISINFECTION;
- MANY WELLS CAN FEED INTO THE DISTRIBUTION SYSTEM INDEPENDENTLY; AND
- TREATED SAMPLES, WHEN AVAILABLE, ARE TAKEN FROM RESERVOIRS;

THIS SECTION WILL DISCUSS:

- RESULTS FROM RAW, PRETREATED, TREATED AND DISTRIBUTED WATERS;
- THOSE PARAMETERS WITH CONCENTRATIONS ABOVE GUIDELINE VALUES; AND
- POSITIVE ORGANIC PARAMETERS DETECTED.

In this report comments are combined for all sample locations for each parameter discussed. The water in the distribution system can be a mixture from many sources.

BACTERIOLOGICAL

Guidelines for bacteriological sampling and testing of a supply are developed to maintain a proper supervision of its bacteriological quality. Routine monitoring programs usually require that multiple samples be collected in a given system. Full interpretation of bacteriological quality cannot be made on the basis of single samples. Standard plate count was the only bacteriological analysis conducted on the treated and distributed water. No results were above the guideline.

INORGANIC & PHYSICAL

CHEMISTRY (FIELD)

It is desirable that the temperature of drinking water be less than 15°C. The palatability of water is enhanced by its coolness. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. The temperature of delivered water may increase in the distribution system due to the warming effect of soil in late summer and fall and/or as a result of higher temperatures in the source water.

Field temperature exceeded the ODWO Aesthetic Objective of 15°C in 3 of 91 pretreated, treated and distributed water samples with a maximum reported value of 21.0°C.

CHEMISTRY (LABORATORY)

Calcium exceeded the European Economic Community Aesthetic Guideline Level of 100 mg/L in 46 of 106 pretreated, treated and distributed water samples with a maximum reported value of 144.5 mg/L.

Chloride exceeded the ODWO Aesthetic Objective of 250 mg/L in 1 of 106 pretreated, treated and distributed water samples with a maximum reported value of 409 mg/L.

Colour in drinking water may be due to the presence of natural or synthetic substances as well as certain metallic ions. Colour is measured in Hazen units (HZU).

Colour exceeded the ODWO Aesthetic Objective of 5 HZU in 3 of 106 pretreated, treated and distributed water samples with a maximum reported value of 9.0 HZU.

Elevated conductivity is often associated with high hardness levels.

Conductivity exceeded the European Economic Community Aesthetic Guideline Level of 400 umho/cm in all 106 pretreated, treated and distributed water samples with a maximum reported value of 2,050 umho/cm.

Dissolved organic carbon exceeded the ODWO Aesthetic Objective of 5.0 mg/L in 1 of 106 pretreated, treated and distributed water samples with a maximum reported value of 5.6 mg/L.

The ODWOs indicate that a hardness level of between 80 and 100 mg/L as calcium carbonate for domestic waters provides an acceptable balance between corrosion and encrustation. Water supplies with a hardness greater than 200 mg/L are considered poor and possess a tendency to form scale deposits and result in excessive soap consumption.

Hardness exceeded the ODWO Recommended Operational Guideline of 80-100 mg/L and also exceeded 200 mg/L in all 106 pretreated, treated and distributed water samples with a maximum reported value of 528 mg/L.

Magnesium exceeded the European Economic Community Aesthetic Guideline Level of 30.0 mg/L in 75 of 106 pretreated, treated and distributed water samples with a maximum reported value of 42.0 mg/L.

Sodium exceeded the ODWO Recommended Operational Guideline of 200 mg/L in 1 of 106 pretreated, treated and distributed water samples with a maximum reported value of 263.5 mg/L.

Total ammonium exceeded the European Economic Community Aesthetic Guideline Level of 0.05 mg/L in 22 of 106 pretreated, treated and distributed water samples with a maximum reported value of 0.17 mg/L.

Dissolved solids (residue filtrate in Table 4) exceeded the ODWO Aesthetic Objective of 500 mg/L in 55 of 106 pretreated, treated and distributed water samples with a maximum reported value of 1200 mg/L.

The numerous minerals and salts detected above aesthetic guidelines is characteristic of many groundwater sources.

METALS

Iron exceeded the ODWO Aesthetic Objective of 300 ug/L in 1 of 106 pretreated, treated and distributed water samples with a maximum reported value of 480 ug/L.

ORGANIC

CHLOROAROMATICS

The results of the chloroaromatic scan showed that none were detected.

CHLOROPHENOLS

The results of the chlorophenol scan showed that none were detected.

PESTICIDES AND PCB

The results of the pesticide and pcb scan showed that none were detected above trace levels.

PHENOLICS

The results of the phenolic test showed that none were detected above trace levels.

POLYAROMATIC HYDROCARBONS

The results of the polyaromatic hydrocarbon scan showed that none were detected.

SPECIFIC PESTICIDES

The results of the specific pesticide scan showed that none were detected.

VOLATILES

The detection of benzene, ethylbenzene, toluene and xylenes at low, trace levels may be a laboratory artifact derived from the analytical methodology. Trace levels of styrene are considered to be laboratory artifacts resulting from the sample shipping containers.

1,1,1-Trichloroethane was found at positive levels in 10 of the 106 pretreated, treated and distributed water samples analyzed. The maximum observed level was 6.0 ug/L. This was below the United States Environmental Protection Agency Maximum Contaminant Level of 200 ug/L.

Trichloroethylene was found at positive levels in 5 of the 106 pretreated, treated and distributed water samples analyzed. The maximum observed level was 2.5 ug/L. This was below the ODA Maximum Acceptable Concentration of 50 ug/L. Trichloroethylene was also detected at trace levels in 4 wells.

Tetrachloroethylene was found at positive levels in 5 of the 106 pretreated, treated and distributed water samples analyzed. The maximum observed level was 3.6 ug/L. This was below the ODWO Health Related Guidance Value of 65 ug/L. Tetrachloroethylene was also detected at trace levels in one well.

Cis 1,2-dichloroethylene was added to the volatile organic scan by the MOEE laboratory in November 1991. Prior to this date the presence of cis 1,2-dichloroethylene was reported in a note attached to the laboratory results and were therefore not included in the DWSP data base. These results are listed below.

Guelph well supply

<u>Sample Date</u>	<u>Water St</u>	<u>Emma</u>	<u>Edinburgh</u>	<u>Park</u>	<u>Sacco</u>
May 1991	1.5 ug/L	-	-	-	-
Aug 1991	-	-	-	-	1.8 ug/L
Sep 1991	1.5 ug/L	0.1 ug/L	0.3 ug/L	0.3 ug/L	-

Cis 1,2-dichloroethylene was found at positive levels in 3 of 31 pretreated, treated and distributed water samples analysed after November 1991. The maximum observed level was 1.7 ug/L. This was below the United States Environmental Protection Agency Maximum Contaminant Level of 70 ug/L.

1,1-Dichloroethylene, 1,1-dichloroethane and chloroform were detected at trace levels in several wells.

Trihalomethanes (THMs) are produced during the water treatment process and will always occur in chlorinated waters. THMs are comprised of chloroform, chlorodibromomethane and dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs. Only total THM results are discussed. Starting in 1991, samples from the distribution system were quenched with sodium thiosulphate to stop the further production of THMs in the sample bottle. This provided a more representative estimation of the THMs consumed in tap water.

Total trihalomethanes were found at positive levels in 12 of 43 treated and distributed water samples analyzed. The maximum observed level was 25.3 ug/L. This was below the ODWO Maximum Acceptable Concentration of 350 ug/L.

RADIOLOGICAL

RADIONUCLIDES

There are more than 200 radionuclides, some of which occur naturally and others which originate from the activities of society. The radionuclides currently of greater interest from a health view-point are tritium, strontium-90, iodine-131, cesium-137 and radium-226. The gross beta and gross alpha determinations are suitable for preliminary screening except for tritium which must be measured separately. Radionuclides are measured in becquerels per litre (Bq/L). No results were above the available guidelines.

CONCLUSIONS

No known health related guidelines were exceeded.

The Guelph well supply, as sampled by DWSP, for the sample years of 1991 and 1992, produced good quality water and this was maintained in the distribution system.

TABLE 1
DRINKING WATER SURVEILLANCE PROGRAM
PLANT GENERAL REPORT

PLANT NAME: GUELPH WELL SUPPLY
WORKS #: 220000095
UTM #: 175000004800000

DISTRICT: CAMBRIDGE
REGION: WEST CENTRAL
DISTRICT OFFICER: J. TAYLOR

SUPERINTENDENT: DOMENIC BASSO

ADDRESS: FM WOODS PS, WATER WORKS PLACE
GUELPH, ONTARIO
519-837-5627

MUNICIPALITY: GUELPH
AUTHORITY: MUNICIPAL

PLANT INFORMATION

	PLANT VOLUME:	-	(X 1000 M3)
MAXIMUM PUMPING CAPACITY:	90.460		(X 1000 M3/DAY)
RATED CAPACITY:	-		(X 1000 M3/DAY)

MUNICIPALITY	POPULATION
-----	-----
GUELPH	90,000

TABLE 3
DRINKING WATER SURVEILLANCE PROGRAM GUELPH WELL SUPPLY SAMPLE DAY CONDITIONS
AND TREATMENT CHEMICAL DOSAGES IN (MG/L) FOR 1991 AND 1992
F.M. WOODS PUMPING STATION

POST CHLORINATION
CHLORINE

DATE	DELAY * TIME(HRS) (1000H3)	FLOW
91 JAN 07 12.00	13.636	.60
91 FEB 04 12.00	22.438	.60
91 MAR 04 12.00	25.591	.60
91 APR 02 12.00	26.626	.60
91 MAY 01 12.00	29.802	.60
91 JUN 03 12.00	13.636	.60
91 JUL 02 12.00	38.815	.60
92 APR 06		
92 MAY 04 12.00	.000	.55
92 OCT 05	.000	.90

* THE DELAY TIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

TABLE 3
DRINKING WATER SURVEILLANCE PROGRAM GUELPH WELL SUPPLY SAMPLE DAY CONDITIONS
AND TREATMENT CHEMICAL DOSAGES IN (MG/L) FOR 1991 AND 1992
PATISLEY ROAD WELL

POST CHLORINATION
CHLORINE

IRON SEQUESTERING
SODIUM SILICATE

DATE	DELAY * TIME(HRS) (1000H3)	FLOW
91 JAN 07	.00	4.545
91 FEB 04	60.00	2.914
91 MAR 04	60.00	4.000
91 APR 02	60.00	4.675
91 MAY 01	60.00	3.667
91 JUN 03	60.00	4.545
91 JUL 02	60.00	8.527
92 APR 06	8.00	3.000
92 MAY 04		
92 OCT 05		

* THE DELAY TIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

TABLE 3
DRINKING WATER SURVEILLANCE PROGRAM GUELPH WELL SUPPLY SAMPLE DAY CONDITIONS
AND TREATMENT CHEMICAL DOSAGES IN (MG/L) FOR 1991 AND 1992
UNIVERSITY OF GUELPH PUMPING STATION

POST CHLORINATION

CHLORINE

DATE	DELAY * TIME(HRS)	FLOW (1000M3)
91 JAN 07	36.00	2.273 .45
91 FEB 04	36.00	1.522 .45
91 MAR 04	36.00	1.568 .45
91 APR 02	36.00	1.077 .30
91 MAY 01	36.00	1.390 .30
91 JUN 03	36.00	2.273 .25
91 JUL 02	36.00	1.583 .32
92 APR 06	.	.
92 MAY 04	.	.
92 OCT 05	.	.

* THE DELAY TIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

KEY TO TABLE 4 and 5

- A ONTARIO DRINKING WATER OBJECTIVES (ODWO)
1. Maximum Acceptable Concentration (MAC)
1+. MAC for Total Trihalomethanes
2. Interim Maximum Acceptable Concentration (IMAC)
3. Aesthetic Objective (AO)
3*. AO for Total Xylenes
4. Recommended Operational Guideline
5. Health Related Guidance Value
- B HEALTH & WELFARE CANADA (H&W)
1. Maximum Acceptable Concentration (MAC)
2. Proposed MAC
3. Interim MAC
4. Aesthetic Objective (AO)
- C WORLD HEALTH ORGANIZATION (WHO)
1. Guideline Value (GV)
2. Tentative GV
3. Aesthetic GV
- D US ENVIRONMENTAL PROTECTION AGENCY (EPA)
1. Maximum Contaminant Level (MCL)
2. Suggested No-Adverse Effect Level (SNAEL)
3. Lifetime Health Advisory
4. EPA Ambient Water Quality Criteria
- F EUROPEAN ECONOMIC COMMUNITY (EEC)
1. Health Related Guideline Level
2. Aesthetic Guideline Level
3. Maximum Admissable Concentration (MADC)
- G CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE
- I NEW YORK STATE AMBIENT WATER GUIDELINE
- N/ NONE AVAILABLE

LABORATORY RESULTS, REMARK DESCRIPTIONS

. No Sample Taken

BDL Below Minimum Measurement Amount

<T Greater Than Detection Limit But Not Confident
(SEE INTERPRETATION OF RESULTS ABOVE)

> Results Are Greater Than The Upper Limit

<=> Approximate Result

!48 No Data: Sample Age Exceeded 48 Hours

!AR No Data: No Numeric Results

!AW No Data: Analysis Withdrawn

!BT No Data: Sample Broken In Transit

!CS No Data: Contamination Suspected

!EF No Data: Laboratory Equipment Failure

!IR No Data: Insufficient Sample

!IS No Data: Insufficient Sample

!LA No Data: Laboratory Accident

!NP No Data: No Procedure

!NR No Data: Sample Not Received

!OP No Data: Obscured Plate

!PE No Data: Procedure Error: Sample Discarded

!PR No Data: Preservative Required

!QU No Data: Quality Control Unacceptable

!RE No Data: Received Empty

!RO No Data: No Numeric Results

!SM No Data: Sample Missing

!SS No Data: Sample Improperly Preserved

!U No Data: Sample Unsuitable For Analysis

!UB No Data: Bottle Broken

!UN No Data: Result Unreliable

!UR	No Data: Unpreserved Sample Required
A	Approximate Value
A3C	Approximate, Total Count Exceeded 300 Colonies
A>	Approximate Value, Exceeded Normal Range
APS	Additional Peak, Less Than, Not Priority Pollutant
ARO	Additional Information In Laboratory Report
CRO	Calculated Result Only
NAF	Not All Required Tests Found
RID	Ioncal Calculated on Incomplete Data Set
RMP	P and M-Xylene Not Separated
RRR	Result Obtained by Repeat Analysis
RRV	Rerun Verification
SFA	Sample Filtered: Filtrate Analyzed
SIL	Sample Incorrectly Labelled
SPS	Several Peaks, Small, Not Priority Pollutant
U48	Unreliable: Sample Age Exceeded 48 Hours
UAL	Unreliable: Sample Age Exceeded Limit
UAU	Unreliable: Sample Age Unknown
UCS	Unreliable: Contamination Suspected
WSD	Wrong Sample Description On Bottle

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
BACTERIOLOGICAL							
FECAL COLIFORM MF (CT/100ML)		DET'N LIMIT = 0	GUIDELINE = 0 (A1)				
1991 JAN	0	-	-	-	-	-	-
1991 FEB	0	-	-	-	-	-	-
1991 MAR	0	-	-	-	-	-	-
1991 APR	0	-	-	-	-	-	-
1991 MAY	0 UAU	-	-	-	-	-	-
1991 JUN	0	-	-	-	-	-	-
1991 JUL	1	-	-	-	-	-	-
1991 AUG	108	0	0	0	0	0	0
1991 SEP	-	0	0	0	0	0	0
1991 OCT	-	0	0	0	0	0	0
1991 NOV	-	0	0	0	0	0	0
1992 MAR	-	0	0	0	0	0	0
1992 AUG	124	0	0	0	0	22	-
TOTAL COLIFORM MF (CT/100ML)							
		DET'N LIMIT = 0	GUIDELINE = 5/100ML (A1)				
1991 JAN	0	-	-	-	-	-	-
1991 FEB	1	-	-	-	-	-	-
1991 MAR	0	-	-	-	-	-	-
1991 APR	0	-	-	-	-	-	-
1991 MAY	1 UAU	-	-	-	-	-	-
1991 JUN	10	-	-	-	-	-	-
1991 JUL	27	-	-	-	-	-	-
1991 AUG	11A	0	0	0	0	0	0
1991 SEP	-	0	0	0	0	0	0
1991 OCT	-	0	0	0	0	1	0
1991 NOV	-	0	0	0	0	0	0
1992 MAR	-	0	0	0	0	0	0
1992 AUG	530 ASC	0	0	0	8	33	-
T COLIFORM BCKGRD MF (CT/100ML)							
		DET'N LIMIT = 0	GUIDELINE = N/A				
1991 JAN	24	-	-	-	-	-	-
1991 FEB	11	-	-	-	-	-	-
1991 MAR	26	-	-	-	-	-	-
1991 APR	2	-	-	-	-	-	-
1991 MAY	23 UAU	-	-	-	-	-	-
1991 JUN	28	-	-	-	-	-	-
1991 JUL	32	-	-	-	-	-	-
1991 AUG	11A	1	0	0	0	0	0
1991 SEP	-	0	0	0	0	0	0
1991 OCT	-	0	0	0	0	0	0
1991 NOV	-	0	0	0	0	0	0
1992 MAR	-	0	0	0	0	0	0
1992 AUG	24000 >	0	0	0	80	240	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

BACTERIOLOGICAL		DET'N LIMIT = 0		ELINE = 0 (A1)		PARK WELL PRETREATED		QUEENSDALE PRETREATED	
FECAL COLIFORM MF (CT/100ML)	SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED	
1991 JAN	-	0	-	-	-	-	-	-	-
1991 FEB	-	0	-	-	-	-	-	-	-
1991 MAR	-	0	-	-	-	-	-	-	-
1991 APR	-	0	-	-	-	-	-	-	-
1991 MAY	-	0	0 UAU	-	-	-	-	-	-
1991 JUN	-	0	-	-	-	-	-	-	-
1991 JUL	-	0	-	-	-	-	-	-	-
1991 AUG	-	-	-	-	-	-	-	-	-
1991 SEP	1	-	-	0	0	0	0	0	0
1991 OCT	-	-	0	0	0	0	0	0	0
1991 NOV	0	-	-	-	-	-	-	-	-
1992 MAR	1	-	-	-	-	-	-	-	-
1992 APR	0	0	0	0	0	0	0	0	0
1992 AUG	-	-	-	-	-	-	-	-	-
1992 OCT	-	0	0	0	0	-	0	-	-
TOTAL COLIFORM MF (CT/100ML)									
			DET'N LIMIT = 0		GUIDELINE = 5/100ML (A1)				
1991 JAN	-	0	-	-	-	-	-	-	-
1991 FEB	-	0	-	-	-	-	-	-	-
1991 MAR	-	0	-	-	-	-	-	-	-
1991 APR	-	0	-	-	-	-	-	-	-
1991 MAY	-	0	0 UAU	-	-	-	-	-	-
1991 JUN	-	0	-	-	-	-	-	-	-
1991 JUL	-	0	-	-	-	-	-	-	-
1991 AUG	-	-	-	-	-	1 LA	-	-	-
1991 SEP	65 A3C	-	-	0	0	0	0	0	0
1991 OCT	-	-	0	0	0	0	0	0	0
1991 NOV	0	-	-	-	-	-	-	-	-
1992 MAR	0	-	-	-	-	-	-	-	-
1992 APR	0	0	0	0	0	0	0	0	0
1992 AUG	5	-	-	-	-	-	-	-	-
1992 OCT	-	0	0	0	0	-	0	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW		DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
BACTERIOLOGICAL								
FECAL COLIFORM MF (CT/100ML)		DET'N LIMIT = 0		GUIDELINE = 0 (A1)				
1991 JAN	0							
1991 FEB	0							
1991 MAR	0							
1991 APR	0							
1991 MAY	0 UAU							
1991 JUN	0							
1991 JUL	0							
1991 AUG								
1991 SEP		0	0	0	0	0	0	
1991 NOV		0	0	0	0	0	0	
1992 MAY	0	0	0	0	0	0	0	
STANDARD PLATE CNT MF (CT/ML)								
		DET'N LIMIT = 0		GUIDELINE = 500 (A3)				
1991 JAN								0 <=>
1991 FEB								0 <=>
1991 MAR								4 <=>
1991 APR								0 <=>
1991 MAY								0 <=>
1991 JUN								4 <=>
1991 JUL								1 <=>
TOTAL COLIFORM MF (CT/100ML)								
		DET'N LIMIT = 0		GUIDELINE = 5/100ML (A1)				
1991 JAN	0							
1991 FEB	0							
1991 MAR	0							
1991 APR	0							
1991 MAY	0 UAU							
1991 JUN	0							
1991 JUL								
1991 AUG						ILA		
1991 SEP		0	0	0	0	0	0	
1991 NOV		0	0	0	0	0	0	
1992 MAY	0	0	0	0	0	0	0	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

BACTERIOLOGICAL									
STANDARD PLATE CNT MF (CTI/ML)		DET'N LIMIT = 0		GUIDELINE = 500 (A3)					
PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING	DIST. SYSTEM IMPERIAL RD N STANDING	DIST. SYSTEM IMPERIAL RD N STANDING	DIST. SYSTEM IMPERIAL RD N STANDING	DIST. SYSTEM IMPERIAL RD N STANDING
1991 JAN		0 <=>	0 <=>	-	-	2 <=>	-	-	-
1991 FEB		5 <=>	2 <=>	-	-	3 <=>	-	-	-
1991 MAR		2 <=>	17	-	-	1 <=>	-	-	-
1991 APR	0 <=>	2 <=>	1 <=>	-	-	3 <=>	-	-	-
1991 MAY	2 <=>	5 <=>	6 <=>	-	-	0 <=>	-	-	-
1991 JUN	0 <=>	5 <=>	2 <=>	-	-	1 <=>	-	-	-
1991 JUL	4 <=>	1 <=>	2 <=>	-	-	0 <=>	-	-	-
1991 AUG	1 <=>	0 <=>	1 <=>	-	-	1 <=>	-	-	-
1991 OCT		-	-	-	-	3 <=>	-	-	-
1992 APR	0 <=>	-	-	-	-	4 <=>	-	-	-
1992 MAY	-	3 <=>	-	-	-	6 <=>	-	-	-
1992 OCT	2 <=>	-	-	-	-	8 <=>	-	-	-

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
BACTERIOLOGICAL							
T COLIFORM BCKGRD MF (CT/100ML)							
DET'N LIMIT = 0							
GUIDELINE = N/A							
1991 JAN	0						
1991 FEB	0						
1991 MAR	0						
1991 APR	0						
1991 MAY	0 UAU						
1991 JUN	0						
1991 JUL	0						
1991 AUG							
1991 SEP	600 A3C				11A		
1991 OCT		0	0	0	0	0	0
1991 NOV	6		0	0	0	0	0
1991 DEC	7						
1992 JAN		0	0	0	0	0	0
1992 FEB	115						
1992 MAR		0	0	0	0	0	0
1992 APR		0	0	0	0	0	0
1992 MAY		0	0	0	0	0	0
1992 JUN		0	0	0	0	0	0
1992 JUL		0	0	0	0	0	0
1992 AUG		0	0	0	0	0	0
1992 SEP		0	0	0	0	0	0
1992 OCT		0	0	0	0	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL RETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
BACTERIOLOGICAL							
T COLIFORM BCKGRD MF (CT/100ML)	DET'N LIMIT = 0		GUIDELINE = N/A				
1991 JAN	0	-	-	-	-	-	-
1991 FEB	0	-	-	-	-	-	-
1991 MAR	0	-	-	-	-	-	-
1991 APR	0	-	-	-	-	-	-
1991 MAY	0 UAU	-	-	-	-	-	-
1991 JUN	0	-	-	-	-	-	-
1991 JUL	0	-	-	-	-	-	-
1991 AUG	-	-	-	-	ILA	-	-
1991 SEP	-	-	1	-	0	0	-
1991 NOV	0	0	0	0	0	0	-
1992 MAY	0	0	0	-	0	1	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (FIELD)							
FLO CHLORINE (COMB) (MG/L)		DET'N LIMIT = 0		GUIDELINE = N/A			
1991 JAN							.100
1991 FEB							.000
1991 APR							.000
1991 MAY							.020
1991 JUN							.050
1991 JUL							.060
FLO CHLORINE FREE (MG/L)		DET'N LIMIT = 0		GUIDELINE = N/A			
1991 JAN							.000
1991 FEB							.000
1991 APR							.000
1991 MAY							.080
1991 JUN							.050
1991 JUL							.040
FLO CHLORINE (TOTAL) (MG/L)		DET'N LIMIT = 0		GUIDELINE = N/A			
1991 JAN							.100
1991 FEB							.000
1991 APR							.000
1991 MAY							.100
1991 JUN							.100
1991 JUL							.100

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTOR [®] E ₂ FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHEMISTRY (FIELD)					
FLO CHLORINE (COMB) (MG/L)		DET'N LIMIT = 0		GUIDELINE = N/A	
1991 JAN	.100	.000	.000	.000	.000
1991 FEB	.100	.000	.000	.000	.000
1991 MAR	.060	.100	.100	.000	.000
1991 APR	.050	.000	.000	.000	.000
1991 MAY	.100	.000	.000	.000	.000
1991 JUN	.100	.000	.000	.000	.000
1991 JUL	.100	.000	.000	.000	.000
1991 AUG	.100	.100	.100	.000	.000
1991 OCT	.050	.000	.000	.000	.000
1992 APR	.050	.000	.000	.000	.000
1992 MAY	.050	.000	.000	.000	.000
1992 OCT	.000	.000	.000	.000	.000
FLO CHLORINE FREE (MG/L)					
1991 JAN	.000	.100	.100	.010	.010
1991 FEB	.000	.000	.000	.010	.010
1991 MAR	.040	.100	.100	.010	.010
1991 APR	.050	.100	.100	.010	.010
1991 MAY	.000	.000	.000	.010	.010
1991 JUN	.000	.000	.000	.010	.010
1991 JUL	.000	.000	.000	.000	.000
1991 AUG	.000	.100	.100	.000	.000
1991 OCT	.070	.000	.000	.100	.100
1992 APR	.000	.000	.000	.000	.000
1992 MAY	.040	.000	.000	.000	.000
1992 OCT	.060	.000	.000	.000	.000
FLO CHLORINE (TOTAL) (MG/L)					
1991 JAN	.100	DET'N LIMIT = 0		GUIDELINE = N/A	
1991 FEB	.100	.100	.100	.010	.010
1991 MAR	.100	.000	.000	.010	.010
1991 APR	.100	.100	.100	.010	.010
1991 MAY	.100	.100	.100	.010	.010
1991 JUN	.100	.100	.100	.010	.010
1991 JUL	.100	.100	.100	.000	.000
1991 OCT	.120	.000	.000	.200	.200
1992 APR	.090	.000	.000	.000	.000
1992 MAY	.060	.000	.000	.000	.000
1992 OCT	.060	.000	.000	.000	.000

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

FLO PH (OHMSLESS)	CHEMISTRY (FIELD)									
	WOODS PUMP RAW	ERAMOSA RIVER RAW	DET'N LIMIT = N/A	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED	
GUIDELINE = 6.5-8.5 (M4)										
1991 JAN	7,800	-	-	-	-	-	-	-	-	-
1991 FEB	7,600	-	-	-	-	-	-	-	-	-
1991 MAR	7,600	-	-	-	-	-	-	-	-	-
1991 APR	7,600	-	-	-	-	-	-	-	-	-
1991 MAY	7,600	-	-	-	-	-	-	-	-	-
1991 JUN	7,400	-	-	-	-	-	-	-	-	-
1991 JUL	7,400	-	-	-	-	-	-	-	-	-
1991 NOV	-	-	7,800	7,800	7,800	7,400	7,400	7,800	-	-
1992 MAR	-	-	8,000	7,800	8,000	7,900	7,900	7,800	-	-
1992 AUG	-	8,600	8,000	7,900	8,000	8,200	8,000	8,000	-	-
GUIDELINE = 15 (A3)										
FLO TEMPERATURE (DEG. C)										
DET'N LIMIT = N/A										
1991 JAN	6,000	-	-	-	-	-	-	-	-	-
1991 FEB	8,000	-	-	-	-	-	-	-	-	-
1991 MAR	8,500	-	-	-	-	-	-	-	-	-
1991 APR	8,000	-	-	-	-	-	-	-	-	-
1991 MAY	10,000	-	-	-	-	-	-	-	-	-
1991 JUN	9,500	-	-	-	-	-	-	-	-	-
1991 JUL	10,000	-	-	-	-	-	-	-	-	-
1991 NOV	-	-	8,500	8,500	9,000	8,500	8,500	8,500	-	-
1992 MAR	-	-	8,500	8,500	8,500	8,500	7,500	8,500	-	-
1992 AUG	-	14,000	9,500	10,000	9,000	9,500	9,500	9,500	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
DENSITY (FIELD)							
FLO PH (OMNSLESS)		DET'N LIMIT = N/A	GUIDELINE = 6.5-8.5 (A4)				
1991 JAN	7,400						
1991 FEB	7,400						
1991 MAR	7,400						
1991 APR	7,600						
1991 MAY	7,400						
1991 JUN	7,600						
1991 JUL	7,600						
1991 AUG		7,800			8,200		
1991 OCT		7,800	8,200	8,000	7,600	7,400	7,800
1991 NOV							
1992 MAR	7,600						
1992 APR	7,800	7,400	7,600	7,400	7,800	7,400	7,600
1992 AUG	8,000						
1992 OCT		8,200	8,200	8,200		8,000	
FLO TEMPERATURE (DEG.C)							
		DET'N LIMIT = N/A	GUIDELINE = 10.0				
1991 JAN		9,500					
1991 FEB		9,500					
1991 MAR		10,000					
1991 APR		11,000					
1991 MAY		9,000					
1991 JUN		10,000					
1991 JUL		10,000					
1991 AUG		11,000					
1991 OCT		9,000	10,000	9,000	11,000	9,000	9,500
1991 NOV					9,500		
1992 MAR	9,000						
1992 APR	8,000						
1992 AUG	9,500	9,000	9,000	9,000	9,000	9,000	9,500
1992 OCT	10,000	8,500	9,500	9,000		9,000	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (FIELD)							
FLD PH (DMNSLESS)	DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5 (A4)				
1991 JAN	7.600	.	.	.	.	.	7.600
1991 FEB	7.600	.	.	.	.	.	7.600
1991 MAR	7.600	.	.	.	.	.	7.600
1991 APR	7.400	.	.	.	.	.	7.400
1991 MAY	7.400	.	.	.	.	.	7.600
1991 JUN	7.400	.	.	.	.	.	7.400
1991 JUL	7.400	.	.	.	.	.	7.400
1991 AUG	.	7.800	.	7.800	7.800	7.800	.
1991 NOV	.	7.800	7.600	7.800	7.800	7.800	.
1992 MAY	7.700	7.600	7.600	.	8.000	7.600	.
FLD TEMPERATURE (DEG.C)							
DET'N LIMIT = N/A		GUIDELINE = 15 (A3)					
1991 JAN	9.500	.	.	.	.	.	9.500
1991 FEB	9.500	.	.	.	.	.	9.500
1991 MAR	9.500	.	.	.	.	.	9.500
1991 APR	11.000	.	.	.	.	.	11.000
1991 MAY	9.500	.	.	.	.	.	9.000
1991 JUN	13.000	.	.	.	.	.	10.000
1991 JUL	9.000	.	.	.	.	.	11.000
1991 AUG	.	11.000	.	11.000	10.000	.	.
1991 NOV	9.500	9.500	9.500	10.000	9.500	9.000	.
1992 MAY	10.000	10.000	10.000	.	9.500	10.000	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

FALSLEY WELL TREATED	U OF G.WELL TREATED	CHEMISTRY (FIELD)				DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
		FLD PH (DMNLESS)	DET'N LIMIT = N/A	GUIDELINE = 6.5-8.5 (A4)					
1991 JAN	7,600	7,600	7,900	7,800	7,600	7,600	7,600	7,600	7,600
1991 FEB	7,400	7,400	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1991 MAR	7,400	7,400	7,600	7,800	7,800	7,600	7,600	7,600	7,600
1991 APR	7,600	7,600	7,600	7,800	7,800	7,600	7,600	7,600	7,600
1991 MAY	7,400	7,400	7,800	7,600	7,600	7,600	7,600	7,600	7,600
1991 JUN	7,400	7,400	7,800	8,000	8,000	7,600	7,600	7,600	7,600
1991 JUL	7,400	7,400	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1991 AUG	7,600	7,600	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1991 OCT	7,800	7,800	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1992 APR	7,800	7,800	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1992 MAY	7,800	7,800	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1992 OCT	8,200	8,200	7,600	7,600	7,600	7,600	7,600	7,600	7,600
FLD TEMPERATURE (DEG.C)									
1991 JAN	9,000	9,000	DET'N LIMIT = N/A	GUIDELINE = 15 (A3)	14,000	9,000	9,000	17,000	17,000
1991 FEB	8,500	8,500	9,000	15,000	15,000	7,000	7,000	14,500	14,500
1991 MAR	9,500	9,500	12,000	14,000	14,000	13,000	8,000	16,000	16,000
1991 APR	11,000	11,000	8,000	18,000	18,000	16,000	14,000	17,000	17,000
1991 MAY	9,000	9,000	12,000	16,000	16,000	13,000	13,000	17,000	17,000
1991 JUN	10,000	10,000	13,000	17,000	22,000	21,000	21,000	29,000	29,000
1991 JUL	10,000	10,000	15,000	18,000	18,000	18,000	14,500	22,000	22,000
1991 AUG	10,000	10,000	16,000	19,000	19,000	14,500	14,500	20,000	20,000
1991 OCT	9,000	9,000	7,600	7,600	7,600	7,600	7,600	11,000	11,000
1992 APR	9,000	9,000	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1992 MAY	9,500	9,500	7,600	7,600	7,600	7,600	7,600	7,600	7,600
1992 OCT	9,500	9,500	7,600	7,600	7,600	7,600	7,600	7,600	7,600

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
CHEMISTRY (LABORATORY)							
ALKALINITY (MG/L)		DET'N LIMIT = 0.2	GUIDELINE = 30-500 (A4)				
1991 JAN	267,500						
1991 FEB	273,400						
1991 MAR	273,300						
1991 APR	271,700						
1991 MAY	275,600						
1991 JUN	269,300						
1991 JUL	266,600						
1991 AUG	216,400						
1991 SEP		267,900	267,100		IRE	253,800	335,600
1991 OCT							
1991 NOV		IRE	264,900	255,400	278,900	246,300	
1992 MAR		260,700	260,000	257,900	283,000	250,800	
1992 AUG		262,800	261,000	265,300	290,300	256,900	
CALCIUM (MG/L)		DET'N LIMIT = 0.20	GUIDELINE = 100 (F2)				
1991 JAN	96,400						
1991 FEB	99,000						
1991 MAR	97,000						
1991 APR	94,400						
1991 MAY	87,900						
1991 JUN	85,800						
1991 JUL	94,600						
1991 AUG	71,100						138,000
1991 SEP		106,000	106,000		IRE	101,000	
1991 OCT							
1991 NOV		IRE	101,200	103,200	83,800	98,200	
1992 MAR		101,300	102,000	107,200	85,100	100,300	
1992 AUG		100,700	107,000	109,400	95,200	98,700	
CYANIDE (MG/L)		DET'N LIMIT = 0.001	GUIDELINE = 0.2 (A1)				
82 SAMPLES	BOL	BOL	BOL	BOL	BOL	BOL	BOL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREEK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHEMISTRY (LABORATORY)							
ALKALINITY (MG/L)		DET'N LIMIT = 0.2		GUIDELINE = 30-500 (A4)			
1991 JAN	-	299.200	-	-	-	-	-
1991 FEB	-	308.600	-	-	-	-	-
1991 MAR	-	306.100	-	-	-	-	-
1991 APR	-	263.500	-	-	-	-	-
1991 MAY	-	304.800	-	-	-	-	-
1991 JUN	-	271.800	-	-	-	-	-
1991 JUL	-	297.200	-	-	-	-	-
1991 AUG	-	-	275.800	-	270.600	-	-
1991 SEP	320.200	-	-	250.100	-	306.800	334.700
1991 OCT	-	-	267.900	243.300	256.300	269.500	279.300
1991 NOV	286.600	-	-	-	-	-	-
1991 DEC	298.500	-	-	-	-	-	-
1992 JAN	-	-	-	-	-	-	-
1992 APR	-	284.100	274.800	243.800	234.100	283.600	322.900
1992 AUG	304.500	-	-	-	-	-	-
1992 OCT	-	280.400	275.800	250.800	251.400	286.100	-
CALCIUM (MG/L)							
		DET'N LIMIT = 0.20		GUIDELINE = 100 (F2)			
1991 JAN	-	106.300	-	-	-	-	-
1991 FEB	-	106.000	-	-	-	-	-
1991 MAR	-	97.400	-	-	-	-	-
1991 APR	-	82.400	-	-	-	-	-
1991 MAY	-	98.200	-	-	-	-	-
1991 JUN	-	84.400	-	-	-	-	-
1991 JUL	-	89.800	-	-	-	-	-
1991 AUG	-	-	97.700	-	95.300	-	-
1991 SEP	-	-	-	95.000	-	140.000	108.000
1991 OCT	-	-	94.300	87.000	88.800	116.700	89.500
1991 NOV	-	-	-	-	-	-	-
1992 MAR	113.300	-	-	-	-	-	-
1992 APR	-	98.000	95.000	98.900	85.700	142.300	113.200
1992 AUG	100.100	-	-	-	-	-	-
1992 OCT	-	109.750	97.200	104.200	95.350	141.100	-
CYANIDE (MG/L)							
		DET'N LIMIT = 0.001		GUIDELINE = 0.2 (A1)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
ALKALINITY (MG/L)		DET'N LIMIT = 0.2		GUIDELINE = 30-500 (A4)			
1991 JAN	276.900	-	-	-	-	-	267.000
1991 FEB	282.900	-	-	-	-	-	272.700
1991 MAR	283.800	-	-	-	-	-	277.300
1991 APR	234.700	-	-	-	-	-	272.800
1991 MAY	281.100	-	-	-	-	-	274.600
1991 JUN	150.000	-	-	-	-	-	272.100
1991 JUL	283.900	-	-	-	-	-	268.900
1991 AUG	316.700	-	-	307.300	306.900	-	-
1991 SEP	-	326.500	268.700	-	-	288.700	-
1991 NOV	-	296.300	275.600	342.800	286.500	281.900	-
1992 MAY	239.300	289.100	270.600	-	275.000	280.300	-
CALCIUM (MG/L)		DET'N LIMIT = 0.20		GUIDELINE = 100 (F2)			
1991 JAN	113.600	-	-	-	-	-	94.700
1991 FEB	107.000	-	-	-	-	-	97.600
1991 MAR	105.200	-	-	-	-	-	95.400
1991 APR	80.700	-	-	-	-	-	87.600
1991 MAY	103.500	-	-	-	-	-	88.200
1991 JUN	51.500	-	-	-	-	-	87.200
1991 JUL	102.000	-	-	-	-	-	91.200
1991 AUG	128.800	-	-	94.400	93.900	-	-
1991 SEP	-	144.500	141.000	-	-	141.000	-
1991 NOV	-	122.900	143.100	93.600	81.000	137.700	-
1992 MAY	83.650	88.300	113.050	128.050	79.550	129.300	-
CYANIDE (MG/L)		DET'N LIMIT = 0.001		GUIDELINE = 0.2 (A1)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)				DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
		ALKALINITY (MG/L)	DET'N LIMIT = 0.2	GUIDELINE = 30-500 (A4)					
1991 JAN	284,500	277,200	278,500	263,900	282,000				
1991 FEB	291,000	286,500	273,100	272,500	293,500				292,300
1991 MAR	289,800	282,900	266,900	272,300	289,400				289,100
1991 APR	285,900	234,000	263,200	271,800	284,700				286,900
1991 MAY	289,800	251,100	271,700	278,100	292,100				295,200
1991 JUN	278,100	193,900	265,700	267,900	278,500				282,200
1991 JUL	284,500	278,700	268,100	272,600	273,400				273,100
1991 AUG			267,500	269,100	304,100				305,800
1991 OCT					273,500				278,900
1992 APR					286,500				270,000
1992 MAY	171,800				285,800				284,300
1992 OCT	283,100								
CALCIUM (MG/L)		DET'N LIMIT = 0.20		GUIDELINE = 100 (F2)					
1991 JAN	109,200	111,700	126,000	100,200	108,900				
1991 FEB	105,000	106,000	99,600	95,400	106,000				109,000
1991 MAR	109,000	110,000	101,000	99,200	109,000				110,000
1991 APR	93,900	81,600	92,300	84,600	97,300				97,500
1991 MAY	97,100	88,700	91,000	90,500	100,000				99,200
1991 JUN	91,200	83,600	92,800	90,200	91,300				93,600
1991 JUL	99,000	99,400	92,000	89,600	97,600				94,400
1991 AUG			83,300	83,200	94,000				95,600
1991 OCT	95,600				93,500				97,000
1992 APR		70,200			102,700				97,200
1992 MAY	109,000				95,150				99,900
1992 OCT									
CYANIDE (MG/L)		DET'N LIMIT = 0.001		GUIDELINE = 0.2 (A1)					
	BOL	BOL							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
CHEMISTRY (LABORATORY)						
CHLORIDE (MG/L)		DET'N LIMIT = 0.20	GUIDELINE = 250 (A3)			
1991 JAN	30.000					
1991 FEB	31.100					
1991 MAR	28.900					
1991 APR	28.100					
1991 MAY	19.700					
1991 JUN	23.200					
1991 JUL	29.200					
1991 AUG	22.800					
1991 SEP		39.500	25.900		71.900	409.000
1991 OCT						
1991 NOV		IRE	44.000	16.800	71.400	
1992 MAR		42.400	44.700	30.000	74.000	
1992 AUG	23.100	36.700	29.700	45.300	75.800	
COLOUR (HZU)						
		DET'N LIMIT = 0.50	GUIDELINE = 5 (A3)			
1991 JAN	1.500 <T					
1991 FEB	.500 <T					
1991 MAR	1.500 <T					
1991 APR	1.000 <T					
1991 MAY	1.000 <T					
1991 JUN	1.500 <T					
1991 JUL	.500 <T					
1991 AUG	44.000					.500 <T
1991 SEP		2.000	6.000		2.500	
1991 OCT						
1991 NOV		IRE	.500 <T	1.000 <T	1.500	
1992 MAR		1.500	.500 <T	1.500	2.000	
1992 AUG	36.000	BDL	BDL	.500 <T	.500 <T	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
CHLORIDE (MG/L)	DET'N LIMIT = 0.20		GUIDELINE = 250 (A3)				
1991 JAN	78,900	.	.	.	.	.	26,100
1991 FEB	79,700	.	.	.	.	.	29,400
1991 MAR	82,200	.	.	.	.	.	28,800
1991 APR	81,300	.	.	.	.	.	25,600
1991 MAY	82,500	.	.	.	.	.	20,400
1991 JUN	81,600	.	.	.	.	.	23,500
1991 JUL	80,500	.	.	.	.	.	29,500
1991 AUG	142,000	.	.	.	52,200	.	.
1991 SEP	.	190,000	108,000	.	52,300	125,000	.
1991 NOV	.	170,000	98,800	68,500	60,100	126,000	.
1992 MAY	85,100	150,500	105,400	.	.	127,600	.
COLOUR (NZU)							
	DET'N LIMIT = 0.50		GUIDELINE = 5 (A3)				
1991 JAN	500 <t	.	.	.	.	.	1,000 <t
1991 FEB	500 <t	.	.	.	.	.	500 <t
1991 MAR	500 <t	.	.	.	.	.	1,000 <t
1991 APR	1,500 <t	.	.	.	.	.	1,000 <t
1991 MAY	500 <t	.	.	.	.	.	1,000 <t
1991 JUN	1,500 <t	.	.	.	.	.	1,500 <t
1991 JUL	500 <t	.	.	.	.	.	BOL
1991 AUG	.	1,000 <t	.	.	1,500	.	.
1991 SEP	.	1,500	1,000 <t	4,000	1,500	3,000	.
1991 NOV	.	1,000	1,000 <t	3,500	1,500	2,500	.
1992 MAY	1,000 <t	1,000	1,000	.	2,000	4,000	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G. WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHEMISTRY (LABORATORY)					
CHLORIDE (MG/L)		DET'N LIMIT = 0.20		GUIDELINE = 250 (A3)	
1991 JAN	59,000	78,900	81,800	46,700	58,200
1991 FEB	56,300	80,500	44,600	40,700	57,600
1991 MAR	59,600	81,600	44,500	41,300	59,100
1991 APR	60,900	81,500	49,700	25,800	59,700
1991 MAY	57,100	82,600	27,900	21,600	59,900
1991 JUN	29,600	82,100	35,800	29,900	30,200
1991 JUL	52,000	80,500	32,600	28,000	46,600
1991 AUG	-	-	26,300	25,700	51,500
1991 OCT	32,700	-	-	-	44,700
1992 APR	-	-	-	-	46,000
1992 MAY	85,800	-	-	64,600	57,400
1992 OCT	-	-	-	-	56,600
COLOUR (HZU)					
		DET'N LIMIT = 0.50		GUIDELINE = 5 (A3)	
1991 JAN	1,000 <T	500 <T	BOL	500 <T	1,000 <T
1991 FEB	1,000 <T	1,000 <T	BOL	500 <T	BOL
1991 MAR	500 <T	BOL	1,000 <T	BOL	BOL
1991 APR	1,500 <T	1,000 <T	1,500 <T	1,000 <T	1,500 <T
1991 MAY	1,000 <T	500 <T	BOL	500 <T	500 <T
1991 JUN	2,000 <T	1,500 <T	1,500 <T	2,000 <T	2,000 <T
1991 JUL	BOL	BOL	BOL	BOL	BOL
1991 AUG	-	-	-	500 <T	5,000
1991 OCT	1,000	-	-	1,000 <T	1,000 <T
1992 APR	-	-	-	1,000	1,500
1992 MAY	-	500 <T	-	2,000	2,000
1992 OCT	1,000	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	CHEMISTRY (LABORATORY)				CARTER WELL PRETREATED	CLYTHIE WELL PRETREATED	MEMBRO WELL PRETREATED
		CONDUCTIVITY (UMHO/CM)	DET'N LIMIT = 1.0	GUIDELINE = 400 (F2)	DET'N LIMIT = 0.10			
1991 JAN	674							
1991 FEB	687							
1991 MAR	661							
1991 APR	665							
1991 MAY	592							
1991 JUN	586							
1991 JUL	684							
1991 AUG	529		727	703		IRE	878	2050
1991 SEP								
1991 OCT			IRE	764	796	651	914	
1991 NOV			779	756	810	696	912	
1992 MAR			758	766	795	760	899	
1992 AUG	546							
DISS ORG CARBON (MG/L)								
			DET'N LIMIT = 0.10	GUIDELINE = 5.0 (A3)				
1991 JAN	1.000							
1991 FEB	.900							
1991 MAR	1.100							
1991 APR	1.100							
1991 MAY	1.200							
1991 JUN	1.100							
1991 JUL	.900							
1991 AUG	9.100							1.800
1991 SEP			1.100	.600		IRE	1.100	
1991 OCT			IRE	.600	1.100	.600	.700	
1991 NOV			.900	.600	1.100	.900	.600	
1992 MAR			1.000	.500	1.100	1.100	1.200	
1992 AUG	7.200							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
CONDUCTIVITY (UMH/CM)									
SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED		
OET'N LIMIT = 1.0 GUIDELINE = 400 (F2)									
1991 JAN		725							
1991 FEB		742							
1991 MAR		727							
1991 APR		729							
1991 MAY		718							
1991 JUN		722							
1991 JUL		749							
1991 AUG			713		715				
1991 SEP				786		1236		767	
1991 OCT	1145		702	822	695	1282		818	
1991 NOV									
1992 MAR	1251								
1992 APR		706	681	782	622	1195		832	
1992 AUG									
1992 OCT	1278	609	701	804	742	1227			
DISS ORG CARBON (MG/L)									
OET'N LIMIT = 0.10 GUIDELINE = 5.0 (A3)									
1991 JAN		1.100							
1991 FEB		1.000							
1991 MAR		1.000							
1991 APR		1.000							
1991 MAY		1.300							
1991 JUN		1.000							
1991 JUL		1.100							
1991 AUG			1.600		2.100				
1991 SEP				.700	.500				
1991 OCT	1.300		1.600	.800	.500				
1991 NOV	.900				1.700				
1992 MAR	.900					.800		1.200	
1992 APR		.800						1.400	
1992 AUG	.800		1.600	.900	.300 <1	.700		1.300	
1992 OCT		.700	1.900	.800	.700	.900			

TABLE 4. DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CONDUCTIVITY (UMHO/CM)							
CHEMISTRY (LABORATORY)							
		DET'N LIMIT = 1.0		GUIDELINE = 400 (F2)			
1991 JAN	896						652
1991 FEB	884						676
1991 MAR	875						664
1991 APR	878						650
1991 MAY	841						593
1991 JUN	852						586
1991 JUL	900						671
1991 AUG							
1991 SEP		1227		792	780		
1991 NOV			1390			1217	
1991 DEC			1370		779	1262	
1992 MAY	874	1140	1221	892	752	1134	
DISS ORG CARBON (MG/L)							
		DET'N LIMIT = 0.10		GUIDELINE = 5.0 (A3)			
1991 JAN	.900						1.100
1991 FEB	.700						.700
1991 MAR	.700						1.300
1991 APR	.600						1.100
1991 MAY	1.900						1.300
1991 JUN	.700						1.000
1991 JUL	.600						.800
1991 AUG		1.000		1.700	1.000		
1991 SEP			1.100	.700		1.400	
1991 NOV			1.200	.700	.900	1.400	
1992 MAY	.800	1.000	1.200	.900	1.200	1.700	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)				DIST. SYSTEM				DIST. SYSTEM				DIST. SYSTEM			
		CONDUCTIVITY (UMHO/CM)	CHLORINE (MG/L)	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10	DETECTABLE LIMIT = 1.0	DETECTABLE LIMIT = 0.10
1991 JAN	813	896	972	746	820	817	820	817	820	817	820	817	820	817	820	817	820
1991 FEB	796	879	748	723	802	809	802	809	802	809	802	809	802	809	802	809	802
1991 MAR	811	879	732	726	811	799	811	799	811	799	811	799	811	799	811	799	811
1991 APR	802	872	746	638	796	750	796	750	796	750	796	750	796	750	796	750	796
1991 MAY	744	849	626	602	755	644	755	644	755	644	755	644	755	644	755	644	755
1991 JUN	631	848	646	618	633	688	633	688	633	688	633	688	633	688	633	688	633
1991 JUL	778	914	682	661	754	779	754	779	754	779	754	779	754	779	754	779	754
1991 AUG	-	-	636	637	757	767	757	767	757	767	757	767	757	767	757	767	757
1991 OCT	703	879	-	-	831	762	831	762	831	762	831	762	831	762	831	762	831
1992 APR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992 MAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992 OCT	910	-	-	-	-	762	-	762	-	762	-	762	-	762	-	762	-
DISS ORG CARBON (MG/L)																	
1991 JAN	1,200	1,100	1,300	1,000	1,300	1,000	1,300	1,000	1,300	1,000	1,300	1,000	1,300	1,000	1,300	1,000	1,300
1991 FEB	900	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
1991 MAR	1,000	800	1,100	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
1991 APR	1,100	700	1,000	900	900	900	900	900	900	900	900	900	900	900	900	900	900
1991 MAY	1,800	1,100	5,600	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
1991 JUN	1,000	600	1,000	1,000	900	900	900	900	900	900	900	900	900	900	900	900	900
1991 JUL	900	600	1,000	800	800	800	800	800	800	800	800	800	800	800	800	800	800
1991 OCT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991 OCT	900	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992 APR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992 MAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992 OCT	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAV	ERAMOSA RIVER RAV	CHEMISTRY (LABORATORY)										CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
		FLUORIDE (MG/L)	DET'N LIMIT = 0.01		GUIDELINE = 1.5 (A1)									
1991 JAN		.120												
1991 FEB		.140												
1991 MAR		.120												
1991 APR		.120												
1991 MAY		.100												
1991 JUN		.120												
1991 JUL		.140												
1991 AUG		.080												
1991 SEP			.160		.280				IRE		.520		.040 <T	
1991 OCT			IRE		.140				.060		.520			
1991 NOV			.140		.200				.100		.460			
1992 MAR			.160		.220				.080		.380			
1992 AUG														
		HARDNESS (MG/L)	DET'N LIMIT = 0.5		GUIDELINE = 80-100 (A4)									
1991 JAN		367,800												
1991 FEB		367,000												
1991 MAR		361,000												
1991 APR		351,000												
1991 MAY		328,300												
1991 JUN		319,000												
1991 JUL		357,000												
1991 AUG		262,300												
1991 SEP			384,000		392,000				IRE		396,000		482,900	
1991 OCT														
1991 NOV			IRE		375,800				332,600		392,100			
1992 MAR			377,000		381,000				343,000		392,000			
1992 AUG		279,000	373,000		397,000				367,000		378,000			

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)															
FLUORIDE (MG/L)															
DETECT LIMIT = 0.01															
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DETECT LIMIT = 0.5															
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HARDNESS (MG/L)															
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TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
FLUORIDE (MG/L)							
DET'N LIMIT = 0.01 GUIDELINE = 1.5 (A1)							
1991 JAN	.680	.	.	.	.	.	.120
1991 FEB	.680	.	.	.	.	.	.120
1991 MAR	.660	.	.	.	.	.	.120
1991 APR	.660	.	.	.	.	.	.120
1991 MAY	.620	.	.	.	.	.	.100
1991 JUN	.680	.	.	.	.	.	.100
1991 JUL	.620	.	.	.	.	.	.120
1991 AUG	.360	.	.	.100	.080	.	.
1991 SEP	.	.160	.260	.	.	.520	.
1991 NOV	.	.220	.260	.080	.080	.520	.
1992 MAY	.680	.160	.200	.220	.080	.460	.
HARDNESS (MG/L)							
DET'N LIMIT = 0.5 GUIDELINE = 80-100 (A4)							
1991 JAN	442.200	.	.	.	.	.	356.800
1991 FEB	423.000	.	.	.	.	.	365.000
1991 MAR	414.000	.	.	.	.	.	357.000
1991 APR	352.100	.	.	.	.	.	330.400
1991 MAY	402.700	.	.	.	.	.	350.500
1991 JUN	290.500	.	.	.	.	.	324.000
1991 JUL	407.000	.	.	.	.	.	346.000
1991 AUG	481.200	.	.	374.600	365.300	.	.
1991 SEP	.	514.900	511.000	.	.	510.000	.
1991 NOV	.	458.700	522.800	392.400	331.300	501.900	.
1992 MAY	350.000	368.000	426.000	481.000	329.000	468.900	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PALSFLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)					
		DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD STANDING		
FLUORIDE (MG/L)		DET'N LIMIT = 0.01		GUIDELINE = 1.5 (A1)			
1991 JAN	.220	.260	.220	.220	.180		
1991 FEB	.180	.220	.240	.180	.220		
1991 MAR	.220	.240	.220	.220	.200		
1991 APR	.680	.220	.120	.180	.180		
1991 MAY	.180	.140	.100	.120	.140		
1991 JUN	.680	.200	.140	.160	.120		
1991 JUL	.120	.140	.120	.100	.100		
1991 AUG	.680	.080	.080	.120	.140		
1991 OCT	.	.	.	.180	.120		
1992 APR	.160	.	.	.	.		
1992 MAY	.680	.	.	.120	.140		
1992 OCT	.640	.	.	.	.		
HARDNESS (MG/L)		DET'N LIMIT = 0.5		GUIDELINE = 80-100 (A4)			
1991 JAN	405.100	462.900	382.500	410.600	406.000		
1991 FEB	391.000	380.000	369.000	399.000	406.000		
1991 MAR	422.000	377.000	372.000	387.000	367.700		
1991 APR	426.000	350.700	322.200	367.700	370.200		
1991 MAY	361.700	350.000	335.500	371.600	349.000		
1991 JUN	361.100	372.200	338.300	340.700	353.000		
1991 JUL	338.000	346.000	336.000	366.000	365.000		
1991 AUG	369.000	350.000	342.000	382.300	360.600		
1991 OCT	.	316.400	316.100	351.200	379.800		
1992 APR	363.000	.	.	389.000	371.200		
1992 MAY	430.280	.	.	358.380	.		
1992 OCT	.	.	.	.	.		

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)						
IONCAL (DMNSLESS)	DET'N LIMIT = N/A		GUIDELINE = N/A			
1991 JAN	4.891	.	.	.	.	.
1991 FEB	.427	.	.	.	.	.
1991 MAR	1.080	.	.	.	.	.
1991 APR	1.579	.	.	.	.	.
1991 MAY	2.045 NAF	.	.	.	.	.
1991 JUN	1.750 NAF	.	.	.	.	.
1991 JUL	1.483	.	.	.	.	.
1991 AUG	.303	.	.	.	.	.
1991 SEP	.000 NAF	.998 NAF	.697 NAF	.000 NAF	2.938 NAF	7.265
1991 OCT	.	.	.	.	.	.
1991 NOV	.	.000 NAF	3.657 NAF	4.703	2.595 NAF	4.095 NAF
1992 MAR	.	2.058	.276	4.814 NAF	2.978	4.223
1992 AUG	.	.182 NAF	2.540 NAF	.076	1.609 NAF	1.853 NAF
POTASSIUM (MG/L)		DET'N LIMIT = 0.01		GUIDELINE = 10 (F2)		
1991 JAN	1.760	.	.	.	.	.
1991 FEB	1.850	.	.	.	.	.
1991 MAR	1.750	.	.	.	.	.
1991 APR	1.800	.	.	.	.	.
1991 MAY	1.560	.	.	.	.	.
1991 JUN	1.650	.	.	.	.	.
1991 JUL	1.600	.	.	.	.	.
1991 AUG	1.190	.	.	.	.	.
1991 SEP	.	1.850	1.700	1.750	2.200	2.170
1991 OCT	.	.	.	.	.	.
1991 NOV	.	IRE	1.680	1.770	1.780	2.130
1992 MAR	.	1.930	1.740	1.850	2.170	2.150
1992 AUG	.	1.750	1.780	1.840	2.210	2.060

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)							
TONCAL (OMNISESS)							
SILVERCREK WELL PRETREATED	PATISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	ODDNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
		DET'N LIMIT = N/A	GUIDELINE = N/A				
1991 JAN		4.650					
1991 FEB		.762					
1991 MAR		3.590					
1991 APR		4.087					
1991 MAY		4.528 NAF					
1991 JUN		4.706 NAF					
1991 JUL		4.472					
1991 AUG		2.159			2.234		
1991 SEP	2.719 NAF		3.868 NAF	3.989 NAF		2.822 NAF	2.126 NAF
1991 OCT		1.720	4.041	3.732	4.408	4.728	4.044
1991 NOV	4.737 NAF						
1992 MAR	4.161						
1992 APR		3.471 NAF	1.831 NAF	1.767 NAF	2.209 NAF	1.494 NAF	1.074 NAF
1992 AUG	1.835 NAF	.622	2.302	.318		4.690	
1992 OCT		1.071					
POTASSIUM (MG/L)							
		DET'N LIMIT = 0.01	GUIDELINE = 10 (F2)				
1991 JAN		1.620					
1991 FEB		1.600					
1991 MAR		1.700					
1991 APR		1.470					
1991 MAY		1.490					
1991 JUN		1.550					
1991 JUL		1.500					
1991 AUG		1.330			1.450		
1991 SEP	2.700		1.750	1.500		2.550	1.950
1991 OCT		1.400	1.760	1.460	1.450	2.450	1.980
1991 NOV	2.590						
1992 MAR	2.800						
1992 APR		1.450	1.760	1.470	1.340	2.600	2.190
1992 AUG	2.910						
1992 OCT	1.830	1.525	1.748	1.507		2.694	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
IONCAL (OMNSLESS)									
U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED		
		DET'N LIMIT = N/A		GUIDELINE = N/A					
1991 JAN	4.330	.	.	.	.	.	4.455		
1991 FEB	1.564	.	.	.	.	.	1.341		
1991 MAR	1.647	.	.	.	.	.	1.161		
1991 APR	4.494	.	.	.	.	.	5.221		
1991 MAY	3.190 NAF	.	.	.	.	.	1.001 NAF		
1991 JUN	2.426	.	.	.	.	.	1.376 NAF		
1991 JUL	.072	.	.	.	.	.	.214		
1991 AUG	.	.	.	.	.	.	.000 NAF		
1991 SEP	.	.	4.533 NAF	4.575	1.516	1.494	3.037 NAF		
1991 NOV	.	.	4.335 NAF	2.961 NAF	3.866 NAF	4.192 NAF	1.779 NAF		
1992 MAY	6.881	4.497 NAF	4.817 NAF	4.401 NAF	.	4.683 NAF	4.267 NAF		
POTASSIUM (MG/L)									
		DET'N LIMIT = 0.01		GUIDELINE = 10 (F2)					
1991 JAN	1.830	.	.	.	.	.	1.830		
1991 FEB	.	.	.	.	.	.	1.900		
1991 MAR	1.750	.	.	.	.	.	1.750		
1991 APR	1.690	.	.	.	.	.	1.700		
1991 MAY	1.600	.	.	.	.	.	1.630		
1991 JUN	1.700	.	.	.	.	.	1.700		
1991 JUL	1.550	.	.	.	.	.	1.550		
1991 AUG	.	2.820	.	.	.	.990	.		
1991 SEP	.	.	3.250	2.150	1.280	.	3.400		
1991 NOV	.	.	3.080	2.000	.860	.	3.280		
1992 MAY	1.715	3.027	3.073	2.102	.952	.	3.225		

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)				DIST. SYSTEM VICTORIA RD STANDING				DIST. SYSTEM FREE FLOW				DIST. SYSTEM IMPERIAL RD N STANDING			
		IONCAL (OMMSLESS)				DET'N LIMIT = N/A				GUIDELINE = N/A							
1991 JAN	4.950	3.665	4.673	5.123	4.595												
1991 FEB	1.347	1.834	.496	.569	.127												.116
1991 MAR	1.564	3.595	.833	1.579	3.071												.828
1991 APR	4.881	3.952	3.931	5.093	3.985												3.719
1991 MAY	3.382 NAF	4.285 NAF	1.985 NAF	2.708 NAF	1.483 NAF												2.066 NAF
1991 JUN	2.998 NAF	4.118	.912 NAF	.526 NAF	2.741 NAF												1.512 NAF
1991 JUL	.821	2.591	.024	1.068	.855												.963
1991 AUG	-	-	6.356	6.714	2.445												2.427
1991 OCT	1.902 NAF	-	-	-	2.709												1.660
1992 APR	-	4.399 NAF	-	-	1.269 NAF												4.921 NAF
1992 MAY	-	-	-	-	.925												1.494
1992 OCT	1.301	-	-	-	-												-
		POTASSIUM (MG/L)				DET'N LIMIT = 0.01				GUIDELINE = 10 (F2)							
1991 JAN	2.090	1.810	2.270	1.930	2.050												1.950
1991 FEB	2.000	1.750	1.950	1.950	1.950												2.100
1991 MAR	2.100	1.800	1.950	1.900	2.100												1.810
1991 APR	1.890	1.630	1.890	1.640	1.820												1.710
1991 MAY	1.710	1.620	1.720	1.590	1.700												1.500
1991 JUN	1.600	1.650	1.650	1.600	1.550												1.650
1991 JUL	1.800	1.700	1.650	1.650	1.750												1.050
1991 AUG	-	-	1.530	1.530	1.780												1.800
1991 OCT	-	-	-	-	2.070												2.120
1992 APR	1.800	-	-	-	-												-
1992 MAY	-	1.711	-	-	2.676												2.016
1992 OCT	1.804	-	-	-	-												-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
LANGUAGERS INDEX (DNKLESS)									
WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMPHO WELL PRETREATED		
1991 JAN	1.186								
1991 FEB	1.087								
1991 MAR	1.139								
1991 APR	1.025								
1991 MAY	.974								
1991 JUN	.844								
1991 JUL	1.116								
1991 AUG	1.023						1.197		
1991 SEP		1.236	1.236			1.004			
1991 OCT				1.060					
1991 NOV		1.112	1.059	1.013	.955	.957			
1992 MAR			1.055	1.130	1.046	1.054			
1992 AUG		1.293 NAF	1.307 NAF	1.292 NAF	1.322 NAF	1.228 NAF			
MAGNESIUM (MG/L)									
DET'N LIMIT = 0.1									
GUIDELINE = 30.0 (F2)									
1991 JAN	30.850								
1991 FEB	29.200								
1991 MAR	28.800								
1991 APR	28.100								
1991 MAY	26.450								
1991 JUN	25.400								
1991 JUL	29.200								
1991 AUG	20.550						33.600		
1991 SEP		29.300	31.100		IRE	35.200			
1991 OCT				29.150					
1991 NOV		IRE	29.950	29.500	30.000	35.750			
1992 MAR		30.100	30.600	31.800	31.500	34.300			
1992 AUG	22.000	29.600	31.400	29.300	31.500	32.000			

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	SHAKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHEMISTRY (LABORATORY)							
LANGLIERS INDEX (DMNSLESS)							
DET'N LIMIT = N/A							
GUIDELINE = N/A							
1991 JAN		1.195					
1991 FEB		1.046					
1991 MAR		1.107					
1991 APR		.862					
1991 MAY		.999					
1991 JUN		.712					
1991 JUL		1.088					
1991 AUG		1.064			.984		
1991 SEP	1.089		1.062	1.018		1.211	1.319
1991 OCT		1.106	1.046	1.131	1.071	1.114	1.026
1991 NOV	.929						
1991 DEC	1.146						
1992 JAN		1.168	1.112	1.090	1.110	1.286	1.310
1992 FEB	1.130	NAF					NAF
1992 MAR		1.062	1.026	1.071		1.074	
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
1992 SEP							
1992 OCT							
MAGNESIUM (MG/L)							
DET'N LIMIT = 0.1							
GUIDELINE = 30.0 (F2)							
1991 JAN		32.350					
1991 FEB		32.400					
1991 MAR		31.400					
1991 APR		30.550					
1991 MAY		30.450					
1991 JUN		31.000					
1991 JUL		32.800					
1991 AUG		32.850			30.850		
1991 SEP	34.100		38.800	33.300		41.700	37.400
1991 OCT		32.450	38.150	32.700	30.050	40.950	34.900
1991 NOV	34.150						
1991 DEC	34.300						
1992 JAN		33.000	39.700	33.500	31.600	42.000	39.000
1992 FEB							
1992 MAR							
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
1992 SEP							
1992 OCT		37.920	40.020	33.720		40.920	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
LANGELIERS INDEX (OMNLESS)							
		DET'N LIMIT = N/A		GUIDELINE = N/A			
1991 JAN	1.172	-	-	-	-	-	1.139
1991 FEB	.996	-	-	-	-	-	1.060
1991 MAR	1.100	-	-	-	-	-	1.148
1991 APR	.782	-	-	-	-	-	1.015
1991 MAY	.901	-	-	-	-	-	.974
1991 JUN	.204	-	-	-	-	-	.866
1991 JUL	1.066	-	-	-	-	-	1.175
1991 AUG	-	1.079	-	1.032	1.000	-	-
1991 SEP	-	-	1.227	1.171	-	1.218	-
1991 NOV	-	-	1.005	1.056	.936	1.086	-
1992 MAY	1.137	1.206	1.333	1.274	1.141	1.352	-
MAGNESIUM (MG/L)							
		DET'N LIMIT = 0.1		GUIDELINE = 30.0 (F2)			
1991 JAN	38.550	-	-	-	-	-	29.250
1991 FEB	37.600	-	-	-	-	-	29.400
1991 MAR	36.800	-	-	-	-	-	28.800
1991 APR	36.600	-	-	-	-	-	27.100
1991 MAY	35.050	-	-	-	-	-	26.750
1991 JUN	39.300	-	-	-	-	-	25.800
1991 JUL	37.000	-	-	-	-	-	28.700
1991 AUG	38.750	-	-	33.750	31.850	-	-
1991 SEP	-	37.300	38.600	-	-	38.200	-
1991 NOV	-	36.900	40.200	38.550	31.400	38.400	-
1992 MAY	34.260	35.820	34.860	39.240	31.740	35.340	-

TABLE 4
ORINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

LANGELIERS INDEX (OMNIBLSS)	PAISLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)				DIST. SYSTEM				DIST. SYSTEM			
			DET'N LIMIT = N/A		GUIDELINE = N/A		FREE FLOW		STANDING		FREE FLOW		STANDING	
1991 JAN	1.191	1.115	1.166	1.144	1.255									
1991 FEB	1.134	1.068	1.076	1.068	1.212								1.201	
1991 MAR	1.188	1.128	1.193	1.184	1.207								1.241	
1991 APR	1.048	.816	1.027	1.008	1.072								1.066	
1991 MAY	1.041	.854	1.001	1.040	1.007								1.118	
1991 JUN	.931	.556	.888	.861	.952								1.048	
1991 JUL	1.210	1.146	1.197	1.174	1.226								1.226	
1991 AUG	-	-	1.165	1.197	1.277								1.206	
1991 OCT	-	-	-	-	1.219								1.293	
1992 APR	1.370 MAF	.956	-	-	1.426 MAF								1.150 MAF	
1992 MAY	-	-	-	-	-								-	
1992 OCT	1.103	-	-	-	1.185								1.194	
MAGNESIUM (MG/L)														
			DET'N LIMIT = 0.1		GUIDELINE = 30.0 (F2)									
1991 JAN	32.150	38.150	36.050	32.150	33.700								32.600	
1991 FEB	31.400	38.300	31.800	31.600	32.400								32.100	
1991 MAR	31.400	37.200	30.500	30.300	28.000								30.200	
1991 APR	30.900	35.550	29.200	26.950	29.650								29.750	
1991 MAY	28.850	36.600	27.000	26.600	27.300								28.000	
1991 JUN	26.700	36.500	27.800	28.600	29.700								30.650	
1991 JUL	29.600	37.400	29.200	28.600	31.000								28.800	
1991 AUG	-	-	26.350	26.300	32.200								33.200	
1991 OCT	-	-	-	-	-								-	
1992 APR	30.100	-	-	-	29.340								-	
1992 MAY	-	33.120	-	-	-								-	
1992 OCT	38.400	-	-	-	-								-	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW		ERAMOSA RIVER RAW	CHEMISTRY (LABORATORY)				GUIDELINE = 200 (A4)				CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
SODIUM (MG/L)			DET'N LIMIT = 0.20										
1991 JAN	13,900												
1991 FEB	13,200												
1991 MAR	13,000												
1991 APR	11,400												
1991 MAY	7,200												
1991 JUN	9,000												
1991 JUL	12,000												
1991 AUG		11,200											
1991 SEP			18,400		11,800							36,600	263,500
1991 OCT													
1991 NOV			IRE		13,400		19,400					36,800	
1992 MAR			20,100		13,700		20,900		7,800			37,900	
1992 AUG		12,400	16,900		13,700		21,200		13,900			39,700	
AMMONIUM TOTAL (MG/L)			DET'N LIMIT = 0.002				GUIDELINE = 0.05 (F2)						
1991 JAN	.010												
1991 FEB	BOL												
1991 MAR	BOL												
1991 APR	BOL												
1991 MAY	.010												
1991 JUN	.006 <T												
1991 JUL	.006 <T												
1991 AUG		.014											
1991 SEP			.008 <T		.004 <T							.158	
1991 OCT							.002 <T						
1991 NOV			IRE		.002 <T		.002 <T					.152	
1992 MAR			.004 <T		.004 <T		.004 <T					.136	
1992 AUG		.018	.006 <T		.010		.008 <T					.064	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SODIUM (MG/L)	CHEMISTRY (LABORATORY)									
	SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED		
									DET'N LIMIT = 0.20	GUIDELINE = 200 (A4)
1991 JAN		16.700								
1991 FEB		17.600								
1991 MAR		19.000								
1991 APR		18.400								
1991 MAY		19.100								
1991 JUN		20.200								
1991 JUL		18.000								
1991 AUG			8.200			13.600				
1991 SEP	88.400			19.200	17.200		71.400	16.600		
1991 OCT			7.500	19.600	17.900	12.000	72.000	16.700		
1991 NOV	79.900									
1992 MAR	102.200									
1992 APR		18.100	8.460	20.400	18.900	10.100	68.900	21.200		
1992 AUG	113.700	38.580	9.560	20.280	19.110		75.660			
1992 OCT										
AMMONIUM TOTAL (MG/L)										
									DET'N LIMIT = 0.002	GUIDELINE = 0.05 (F2)
1991 JAN		.030								
1991 FEB		.022								
1991 MAR		.030								
1991 APR		.032								
1991 MAY		.018								
1991 JUN		.030								
1991 JUL		.030								
1991 AUG			.002 <1			.170				
1991 SEP	.032			.060	.024		.002 <1	.078		
1991 OCT			80L	.054	.018	.048	80L	.014		
1991 NOV	.056									
1992 MAR	.028									
1992 APR		.028	.006 <1	.062	.020	.052	.002 <1	.050		
1992 AUG	.036		.012	.062	.020		.008 <1			
1992 OCT										

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
U OF G WELL RAW		DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED	
SODIUM (MG/L)		DET'N LIMIT = 0.20			GUIDELINE = 200 (A4)				
1991 JAN	34.300							11.500	
1991 FEB	33.200							13.600	
1991 MAR	35.800							12.600	
1991 APR	35.800							11.000	
1991 MAY	33.400							7.500	
1991 JUN	33.400							8.800	
1991 JUL	33.200							11.400	
1991 AUG	74.500				25.800	26.600			
1991 SEP			76.600	52.400			70.200		
1991 NOV			96.200	52.000	32.100	27.400	67.800		
1992 MAY	34.500	76.020	86.460	58.440		30.420	71.220		
AMMONIUM TOTAL (MG/L)		DET'N LIMIT = 0.002			GUIDELINE = 0.05 (F2)				
1991 JAN	.058							.010	
1991 FEB	.042							BOL	
1991 MAR	.050							BOL	
1991 APR	.052							.002 <T	
1991 MAY	.046							.008 <T	
1991 JUN	.056							.004 <T	
1991 JUL	.024							.004 <T	
1991 AUG		BOL			.078	.104			
1991 SEP			BOL	.072			.052		
1991 NOV			BOL	.066	.044	.114	.058		
1992 MAY	.052	.004 <T	.002 <T	.066		.102	.042		

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)					
PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD	DIST. SYSTEM WINDYBUSH RD	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
SODIUM (MG/L)					
DET'N LIMIT = 0.20 GUIDELINE = 200 (A4)					
1991 JAN	31.400	41.600	23.900	31.900	27.400
1991 FEB	26.800	30.600	20.000	19.200	30.800
1991 MAR	31.400	22.000	20.000	30.800	32.300
1991 APR	32.600	25.500	11.800	31.000	30.300
1991 MAY	28.700	10.900	7.600	30.300	13.800
1991 JUN	11.800	33.600	12.200	12.200	14.200
1991 JUL	26.200	34.400	13.000	22.200	26.200
1991 AUG			10.700	26.100	24.600
1991 OCT				23.800	30.500
1992 APR	15.000			35.300	
1992 MAY	33.360			30.480	30.060
1992 OCT	38.760				
AMMONIUM TOTAL (MG/L)					
DET'N LIMIT = 0.002 GUIDELINE = 0.05 (F2)					
1991 JAN	.004 <T	.044	.012	.018	.008 <T
1991 FEB	BOL	.030	.032	.034	BOL
1991 MAR	BOL	.038	.042	.042	BOL
1991 APR	.002 <T	.032	.008 <T	.008 <T	BOL
1991 MAY	BOL	.028	.012	.008 <T	BOL
1991 JUN	BOL	.038	.008 <T	.012	.014
1991 JUL	.004 <T	.030	.002 <T	.006 <T	.006 <T
1991 AUG			BOL	BOL	.068
1991 OCT				.062	BOL
1992 APR	BOL	.006 <T		.018	.040
1992 MAY					
1992 OCT	.026			.004 <T	.002 <T

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW		ERAMOSA RIVER RAW		ARKEL SPRING #6 PRETREATED		ARKEL SPRING #7 PRETREATED		ARKEL SPRING #8 PRETREATED		CARTER WELL PRETREATED		CLYTHE WELL PRETREATED		MEMBRO WELL PRETREATED	
CHEMISTRY (LABORATORY)															
NITRITE (MG/L)				DET'N LIMIT = 0.001				GUIDELINE = 1.0 (A1)							
1991 JAN															
1991 FEB															
1991 MAR															
1991 APR															
1991 MAY															
1991 JUN															
1991 JUL															
1991 AUG															
1991 SEP															
1991 OCT															
1991 NOV															
1992 MAR															
1992 AUG															
NITRATE (TOTAL) (MG/L)				DET'N LIMIT = 0.005				GUIDELINE = 10.0 (A1)							
1991 JAN															
1991 FEB															
1991 MAR															
1991 APR															
1991 MAY															
1991 JUN															
1991 JUL															
1991 AUG															
1991 SEP															
1991 OCT															
1991 NOV															
1992 MAR															
1992 AUG															

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
NITRITE (MG/L)									
DET'N LIMIT = 0.001									
GUIDELINE = 1.0 (A1)									
1991 JAN		.004 <T							
1991 FEB		.001 <T							
1991 MAR		BDL							
1991 APR		.001 <T							
1991 MAY		.001 <T							
1991 JUN		BDL							
1991 JUL		.006							
1991 AUG		BDL							
1991 SEP			.010	.003 <T	.001 <T	.001 <T	.001 <T		
1991 OCT		.001 <T	.013	.005	.006	.003 <T	.001 <T		
1991 NOV									
1992 MAR		.004 <T	.010	.009	.006	.002 <T	.004 <T		
1992 APR		.002 <T							
1992 AUG		.002 <T	.006	.007		.003 <T			
1992 OCT		.003 <T							
NITRATE (TOTAL) (MG/L)									
DET'N LIMIT = 0.005									
GUIDELINE = 10.0 (A1)									
1991 JAN		.795							
1991 FEB		.845							
1991 MAR		.825							
1991 APR		.770							
1991 MAY		.875							
1991 JUN		.930							
1991 JUL		.860							
1991 AUG		3.410				.010 <T			
1991 SEP		.620	.865	.095	.545	1.340	.150		
1991 OCT			.845	.240		1.770	.630		
1991 NOV		.570							
1992 MAR		.780							
1992 APR		.895	3.240	.825	.170	.765	.175		
1992 AUG		.790							
1992 OCT		.365	3.490	1.070	.150	1.750			

TABLE 4
ORINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
		DET'N LIMIT = 0.001		GUIDELINE = 1.0 (A1)			
NITRITE (MG/L)							
1991 JAN	.005						.001 <T
1991 FEB	BOL						BOL
1991 MAR	.001 <T						BOL
1991 APR	.002 <T						BOL
1991 MAY	.002 <T						.001 <T
1991 JUN	.001 <T						BOL
1991 JUL							BOL
1991 AUG	.029			.002 <T	.003 <T		
1991 SEP		.016	.001 <T			.001 <T	
1991 NOV		.042	.002 <T	.009	.002 <T	.001 <T	
1992 MAY	.002 <T	.025	.003 <T		.003 <T	.002 <T	
		DET'N LIMIT = 0.005		GUIDELINE = 10.0 (A1)			
NITRATE (TOTAL) (MG/L)							
1991 JAN	.290						2.900
1991 FEB	.300						2.880
1991 MAR	.340						3.100
1991 APR	.270						3.270
1991 MAY	.460						3.740
1991 JUN	.285						3.590
1991 JUL	.710						2.840
1991 AUG	4.330						
1991 SEP		3.790	1.350	.055	.025		
1991 NOV		2.350	.965	.020 <T	.005 <T	.325	
1992 MAY	.350	7.580	2.740		.050	1.330	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)		DET'N LIMIT = 0.001		GUIDELINE = 1.0 (A1)	
NITRATE (MG/L)					
1991 JAN	.001 <T	BDL	.001 <T	.002 <T	.002 <T
1991 FEB	BDL	BDL	.001 <T	BDL	BDL
1991 MAR	BDL	BDL	.001 <T	BDL	BDL
1991 APR	.001 <T	.002 <T	.001 <T	BDL	BDL
1991 MAY	BDL	.001 <T	BDL	BDL	BDL
1991 JUN	BDL	.010	.001 <T	BDL	BDL
1991 JUL	BDL	.002 <T	BDL	BDL	BDL
1991 AUG	.	BDL	BDL	.001 <T	.002 <T
1991 OCT	.001 <T	.	.	BDL	.001 <T
1992 APR	.001 <T	.	.	.003 <T	.001 <T
1992 MAY	.	.	.	.	.
1992 OCT	.001 <T	.	.	.001 <T	.002 <T
NITRATE (TOTAL) (MG/L)		DET'N LIMIT = 0.005		GUIDELINE = 10.0 (A1)	
1991 JAN	1.910	1.960	2.610	1.750	1.830
1991 FEB	2.110	2.300	2.540	1.750	1.780
1991 MAR	2.810	2.380	2.310	1.750	2.110
1991 APR	2.090	2.380	3.620	2.250	2.520
1991 MAY	2.310	2.380	3.560	2.250	2.520
1991 JUN	2.870	2.850	2.730	2.750	2.620
1991 JUL	2.360	2.650	2.580	2.570	2.620
1991 AUG	.	2.750	2.750	.000	.525
1991 OCT	.	.	.	1.840	1.540
1992 APR	2.790	.	.	2.110	1.290
1992 MAY	.425	.	.	.	.
1992 OCT	.440	.	.	2.160	2.170

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	HEMBRO WELL PRETREATED
CHEMISTRY (LABORATORY)							
NITROGEN TOT KJELD (MG/L)							
		DET'N LIMIT = 0.02		GUIDELINE = N/A			
1991 JAN	.120						
1991 FEB	.080 <T						
1991 MAR	.160						
1991 APR	.180						
1991 MAY	.120						
1991 JUN	.170						
1991 JUL	.080 <T						
1991 AUG	.530						.130
1991 SEP		.130	.100		IRE	.260	
1991 OCT				.150			
1991 NOV		IRE	.090 <T	.130	.140	.230	
1992 MAR		.140	.100	.120	.140	.240	
1992 AUG	.090 <T	.120	.070 <T	.560	.130	.170	
PH (DIMENSIONLESS)		DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5 (A4)			
1991 JAN	8.250						
1991 FEB	8.130						
1991 MAR	8.190						
1991 APR	8.090						
1991 MAY	8.060						
1991 JUN	7.950						
1991 JUL	8.190						
1991 AUG	8.300						8.050
1991 SEP		8.260	8.260		IRE	8.080	
1991 OCT				8.120			
1991 NOV		IRE	8.110	8.090	8.060	8.060	
1992 MAR		8.170	8.110	8.170	8.140	8.140	
1992 AUG	8.500	8.320	8.340	8.310	8.360	8.310	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)							
NITROGEN TOT KJED (MG/L)							
DET'N LIMIT = 0.02							
GUIDELINE = N/A							
SILVERCRA WELLS PRETREATED	PAISLEY WELLS RAW	LAKES WELLS PRETREATED	CALICO WELLS PRETREATED	DOWNEY WELLS PRETREATED	HELMAR WELLS PRETREATED	PARK WELLS PRETREATED	QUEENSDALE PRETREATED
1991 JAN	.110	.	.	.	.	.	.
1991 FEB	.100	.	.	.	.	.	.
1991 MAR	.110	.	.	.	.	.	.
1991 APR	.220	.	.	.	.	.	.
1991 MAY	.110	.	.	.	.	.	.
1991 JUN	.110	.	.	.	.	.	.
1991 JUL	.080 <T	.	.	.	.	.	.
1991 AUG	.	.170	.	.	.280	.	.
1991 SEP	.150	.	.140	.080 <T	.130	.590	.
1991 OCT	.	.250	.170	.060 <T	.100	.120	.
1991 NOV	.150	.	.	.	.	.	.
1992 MAR	.160	.	.	.	.	.	.
1992 APR	.090 <T	.220	.140	.060 <T	.150	.100	.140
1992 AUG	.170	.	.	.	.	.	.
1992 OCT	.120	.240	.150	.060 <T	.110	.	.
PH (DIMENSIONLESS)							
DET'N LIMIT = N/A							
GUIDELINE = 6.5-8.5 (A4)							
1991 JAN	8.170	.	.	.	.	.	.
1991 FEB	8.010	.	.	.	.	.	.
1991 MAR	8.110	.	.	.	.	.	.
1991 APR	8.000	.	.	.	.	.	.
1991 MAY	8.000	.	.	.	.	.	.
1991 JUN	7.830	.	.	.	.	.	.
1991 JUL	8.140	.	.	.	.	.	.
1991 AUG	.	8.110	8.170	8.120	8.050	.	.
1991 SEP	8.040	.	8.190	8.280	8.190	8.080	8.240
1991 OCT	.	8.180	.	.	.	8.120	8.110
1991 NOV	7.980	.	.	.	.	.	.
1992 MAR	8.120	.	.	.	.	.	.
1992 APR	.	8.200	8.210	8.230	8.250	8.180	8.230
1992 AUG	8.150	.	.	.	.	.	.
1992 OCT	8.060	8.090	8.090	8.170	.	7.970	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
NITROGEN TOT KJELD (MG/L)							
		DET'N LIMIT = 0.02		GUIDELINE = N/A			
1991 JAN	.150	.	.	.	.	.	.120
1991 FEB	.100	.	.	.	.	.	.090 <T
1991 MAR	.130	.	.	.	.	.	.140
1991 APR	.130	.	.	.	.	.	.150
1991 MAY	1.180	.	.	.	.	.	.090 <T
1991 JUN	.150	.	.	.	.	.	.140
1991 JUL	.080 <T	.	.	.	.	.	.200
1991 AUG	.110	.	.	.	.	.	.
1991 SEP	.	.140	.200	.130	.160	.210	.
1991 NOV	.	.150	.160	.170	.190	.190	.
1992 MAY	.120	.170	.160	.	.200	.220	.
PH (DMNSLESS)							
		DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5 (A4)			
1991 JAN	8.160	.	.	.	.	.	8.210
1991 FEB	8.000	.	.	.	.	.	8.110
1991 MAR	8.110	.	.	.	.	.	8.200
1991 APR	7.990	.	.	.	.	.	8.110
1991 MAY	7.920	.	.	.	.	.	8.060
1991 JUN	7.800	.	.	.	.	.	7.960
1991 JUL	8.090	.	.	.	.	.	8.260
1991 AUG	.	.	.	.	.	.	.
1991 SEP	7.970	.	.	8.050	8.020	.	.
1991 NOV	.	8.060	8.090	.	.	8.110	.
1991 NOV	8.250	7.950	7.960	7.980	8.050	8.000	.
1992 MAY	8.320	8.320	8.230	.	8.280	8.290	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED		U OF G WELL TREATED	CHEMISTRY (LABORATORY)		DIST. SYSTEM VICTORIA RD STANDING		DIST. SYSTEM IMPERIAL RD N PRE FLOW		DIST. SYSTEM IMPERIAL RD N STANDING	
NITROGEN TOT KJED (MG/L)					DET'N LIMIT = 0.02		GUIDELINE = N/A			
1991 JAN	.130		.140		.170		.140			
1991 FEB	.070 <T		.080 <T		.130		.080 <T			.090 <T
1991 MAR	.110		.120		.160		.120			.160
1991 APR	.130		.130		.150		.150			.160
1991 MAY	.160		.140		.100		.180			.200
1991 JUN	.140		.280		.190		.160			.200
1991 JUL	.060 <T		.110		.150		.140			.060 <T
1991 AUG	.		.		.100		.150			.180
1991 OCT	.		.		.		.120			.120
1992 APR	.160		.		.		.180			.180
1992 MAY	.		.080 <T		.		.			.
1992 OCT	.100		.		.		.160			.170
PH (OHMSLESS)					DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5 (M4)			
1991 JAN	8.180		8.110		8.200		8.250			.
1991 FEB	8.130		8.070		8.130		8.120			8.180
1991 MAR	8.170		8.120		8.230		8.200			.
1991 APR	8.100		8.020		8.120		8.190			8.220
1991 MAY	8.070		7.990		8.110		8.110			8.100
1991 JUN	8.000		7.830		7.950		8.020			8.130
1991 JUL	8.240		8.190		8.260		8.230			8.100
1991 AUG	.		.		8.280		8.260			8.290
1991 OCT	.		.		8.290		8.300			8.220
1992 APR	8.440		.		.		8.290			8.340
1992 MAY	.		8.360		.		8.440			8.210
1992 OCT	8.100		.		.		8.230			8.220

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAM	ERAMOSA RIVER RAM	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYDINE WELL PRETREATED	MEMBRO WELL PRETREATED
CHEMISTRY (LABORATORY)							
PHOSPHORUS FIL REACT (MG/L)	DET'N LIMIT = 0.0005	GUIDELINE = N/A					
1991 JAN	BDL						
1991 FEB	.001 <T						
1991 MAR	.001 <T						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	.001 <T						
1991 JUL	BDL						
1991 AUG	.001 <T						
1991 SEP		BDL	BDL	BDL	IRE	.001 <T	.000 <T
1991 OCT							
1991 NOV		IRE	.000 <T	.000 <T	.002	.002 <T	
1992 MAR		BDL	BDL	BDL	BDL	BDL	
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	
PHOSPHORUS TOTAL (MG/L)	DET'N LIMIT = 0.002	GUIDELINE = 0.40 (P2)					
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	.002 <T						
1991 APR	.004 <T						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	.013						BDL
1991 SEP		BDL	BDL		IRE	BDL	
1991 OCT							
1991 NOV		IRE	.002 <T	.004 <T	.003 <T	.003 <T	
1992 MAR		BDL	BDL	.004 <T	.006 <T	.004 <T	
1992 AUG	BDL	.010	.002 <T	.014		.002 <T	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	ELICO WELL PRETREATED	ALICO WELL PRETREATED	DONKEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHEMISTRY (LABORATORY)							
PHOSPHORUS FIL REACT (MG/L)							
DET'N LIMIT = 0.0005							
GUIDELINE = N/A							
1991 JAN	.000 <T						
1991 FEB	.002 <T						
1991 MAR	.002 <T						
1991 APR	.001 <T						
1991 MAY	.001 <T						
1991 JUN	.001 <T						
1991 JUL	.000 <T						
1991 AUG	BOL				.001 <T		
1991 SEP	.000 <T		.000 <T	BOL	.000 <T	.000 <T	.000 <T
1991 OCT			BOL	BOL	BOL	BOL	.000 <T
1991 NOV	BOL						
1992 MAR	BOL						
1992 APR	BOL		BOL	BOL	BOL	BOL	BOL
1992 AUG	BOL		BOL	BOL			
1992 OCT	.002 <T		BOL	BOL	.001 <T		
PHOSPHORUS TOTAL (MG/L)							
DET'N LIMIT = 0.002							
GUIDELINE = 0.40 (F2)							
1991 JAN	BOL						
1991 FEB	BOL						
1991 MAR	.005 <T						
1991 APR	.016						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG	BOL						
1991 SEP	.003 <T						
1991 OCT	.003 <T		BOL	BOL	BOL	BOL	.002 <T
1991 NOV							
1992 MAR	BOL		BOL	BOL	.003 <T	BOL	.003 <T
1992 APR	BOL		BOL	BOL	BOL	BOL	BOL
1992 AUG	.002 <T		BOL	BOL	.003 <T	BOL	BOL
1992 OCT	.002 <T		BOL	BOL	.002 <T	.002 <T	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
PHOSPHORUS FIL REACT (MG/L)							
		DET'N LIMIT = 0.0005		GUIDELINE = N/A ¹			
1991 JAN	BDL	.	.	.	.	.	.000 <T
1991 FEB	.001 <T	.	.	.	.	.	.001 <T
1991 MAR	.002 <T	.	.	.	.	.	.001 <T
1991 APR	.002 <T	.	.	.	.	.	.000 <T
1991 MAY	.000 <T	.	.	.	.	.	BDL
1991 JUN	.002 <T	.	.	.	.	.	.001 <T
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	.000 <T	.	.	.	.001 <T	.001 <T	.
1991 SEP	.	BDL	.	.	.000 <T	.000 <T	.
1991 NOV	.	.000 <T	.	.	.	.	.
1992 MAY	.001 <T	BDL	.	.	.002 <T	BDL	.
PHOSPHORUS TOTAL (MG/L)							
		DET'N LIMIT = 0.002		GUIDELINE = 0.40 (F2)			
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	BDL
1991 MAR	.005 <T	.	.	.	.	.	.002 <T
1991 APR	.002 <T	.	.	.	.	.	.003 <T
1991 MAY	.002 <T	.	.	.	.	.	BDL
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	.002 <T
1991 AUG	.	.	.	.	.	.	.
1991 SEP	.	BDL	.	.	BDL	BDL	.
1991 NOV	.	BDL	.	.	.002 <T	.002 <T	.
1992 MAY	.002 <T	.002 <T	.	.	.003 <T	.002 <T	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHEMISTRY (LABORATORY)					
PHOSPHORUS FIL	PHOSPHORUS TOTAL (MG/L)	DET'N LIMIT = 0.0005	GUIDELINE = N/A		
1991 JAN	BDL	.001 <T			
1991 FEB	.001 <T	.002			
1991 MAR	.001 <T	.002			
1991 APR	.001 <T	.002 <T			
1991 MAY	.001 <T	.002 <T			
1991 JUN	.000 <T	.002 <T			
1991 JUL	.000 <T	.002 <T			
1992 APR	.001 <T				
1992 MAY		.001 <T			
1992 OCT	.002 <T				
PHOSPHORUS TOTAL (MG/L)					
		DET'N LIMIT = 0.002	GUIDELINE = 0.40 (F2)		
1991 JAN	BDL				
1991 FEB	BDL				
1991 MAR	.004 <T	.008 <T			
1991 APR	BDL	.003 <T			
1991 MAY	.004 <T				
1991 JUN	BDL	.002 <T			
1991 JUL	BDL				
1992 APR	.003 <T				
1992 MAY		.002 <T			
1992 OCT	BDL				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

RESIDUE FILTRATE (MG/L)	CHEMISTRY (LABORATORY)		DET'N LIMIT = N/A	GUIDELINE = 500 (A3)		CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEBRO WELL PRETREATED
	WOODS PUMP RAW	ERAMOSA RIVER RAW		ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED			
1991 JAN	424,000							
1991 FEB	447,000 CRO							
1991 MAR	430,000 CRO							
1991 APR	432,000 CRO							
1991 MAY	385,000 CRO							
1991 JUN	381,000 CRO							
1991 JUL	445,000 CRO							
1991 AUG		344,000 CRO	473,000 CRO	457,000 CRO		IRE	567,000	1200,000
1991 SEP								
1991 OCT								
1991 NOV			IRE	497,000 CRO	517,000 CRO	423,000 CRO	555,000	
1992 MAR			506,000 CRO	491,000 CRO	587,000	452,000 CRO	670,000	
1992 AUG		355,000 CRO	493,000 CRO	498,000 CRO	517,000 CRO	494,000 CRO	684,000	
SULPHATE (MG/L)								
			DET'N LIMIT = 0.20		GUIDELINE = 500 (A3)			
1991 JAN	60,050							
1991 FEB	64,880							
1991 MAR	59,240							
1991 APR	60,420							
1991 MAY	36,220							
1991 JUN	30,420							
1991 JUL	59,240							
1991 AUG		36,160						54,310
1991 SEP			95,950	109,520		IRE	132,560	
1991 OCT					115,110			
1991 NOV			IRE	105,210	99,080	30,050	141,460	
1992 MAR			97,880	101,530	105,650	37,310	135,500	
1992 AUG		24,270	88,730	105,870	94,690	34,110	108,490	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOHNEY WELL PRETREATED	NELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHEMISTRY (LABORATORY)							
RESIDUE FILTRATE (MG/L)		DET'N LIMIT = N/A		GUIDELINE = 500 (A3)			
1991 JAN		395.000					
1991 FEB		482.000 CRO					
1991 MAR		473.000 CRO					
1991 APR		474.000 CRO					
1991 MAY		467.000 CRO					
1991 JUN		469.000 CRO					
1991 JUL		487.000 CRO					
1991 AUG		463.000 CRO			465.000 CRO		
1991 SEP	667.000		511.000 CRO	476.000 CRO		790.000	499.000 CRO
1991 OCT		456.000 CRO	443.000	493.000 CRO	452.000 CRO	704.000	360.000
1991 NOV	573.000						
1992 MAR	801.000						
1992 APR		459.000 CRO	508.000 CRO	467.000 CRO	404.000 CRO	820.000	512.000
1992 AUG	862.000		574.000	482.000 CRO		756.000	
1992 OCT		616.000					
SULPHATE (MG/L)		DET'N LIMIT = 0.20		GUIDELINE = 500 (A3)			
1991 JAN		69.010					
1991 FEB		69.020					
1991 MAR		69.270					
1991 APR		69.000					
1991 MAY		68.300					
1991 JUN		68.870					
1991 JUL		64.980					
1991 AUG		86.390			95.010		
1991 SEP	91.120		147.250	125.970		187.720	80.810
1991 OCT		83.080	141.710	106.290	95.600	164.560	81.100
1991 NOV	105.020						
1992 MAR	88.600						
1992 APR		69.070	145.370	113.080	80.090	190.850	89.250
1992 AUG	79.410		146.800	111.440		167.830	
1992 OCT		99.820					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHEMISTRY (LABORATORY)							
RESIDUE FILTRATE (MG/L)	DET'N LIMIT = N/A			GUIDELINE = 500 (A3)			
1991 JAN	511.000	.	.	.	.	.	400.000
1991 FEB	586.000	.	.	.	.	.	439.000 CRO
1991 MAR	575.000	.	.	.	.	.	432.000 CRO
1991 APR	596.000	.	.	.	.	.	422.000 CRO
1991 MAY	676.000	.	.	.	.	.	385.000 CRO
1991 JUN	669.000	.	.	.	.	.	381.000 CRO
1991 JUL	566.000	.	.	.	.	.	436.000 CRO
1991 AUG	822.000	.	.	515.000 CRO	507.000 CRO	.	.
1991 SEP	.	793.000	732.000	.	.	769.000	.
1991 NOV	.	763.000	749.000	448.000	506.000 CRO	775.000	.
1992 MAY	639.000	813.000	854.000	.	489.000 CRO	816.000	.
SULPHATE (MG/L)							
	DET'N LIMIT = 0.20			GUIDELINE = 500 (A3)			
1991 JAN	104.320	.	.	.	.	.	51.510
1991 FEB	98.830	.	.	.	.	.	54.330
1991 MAR	97.540	.	.	.	.	.	56.330
1991 APR	97.400	.	.	.	.	.	52.220
1991 MAY	89.940	.	.	.	.	.	34.100
1991 JUN	103.800	.	.	.	.	.	30.670
1991 JUL	78.350	.	.	.	.	.	50.640
1991 AUG	109.670	.	.	54.700	48.770	.	.
1991 SEP	.	103.770	221.540	.	.	211.760	.
1991 NOV	.	150.340	229.610	40.780	46.830	196.210	.
1992 MAY	92.220	84.610	200.730	.	53.410	181.630	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	CHEMISTRY (LABORATORY)				DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM STANDING	DIST. SYSTEM FREE FLOW	DIST. SYSTEM STANDING
		RESIDUE FILTRATE (MG/L)	DET'N LIMIT = N/A	GUIDELINE = 500 (A3)					
1991 JAN	508.000	556.000	646.000	469.000	486.000				
1991 FEB	517.000 CRO	524.000	486.000 CRO	470.000 CRO	555.000				516.000
1991 MAR	532.000	622.000	476.000 CRO	472.000 CRO	561.000				525.000
1991 APR	533.000	592.000	485.000 CRO	415.000 CRO	517.000 CRO				519.000 CRO
1991 MAY	484.000 CRO	650.000	407.000 CRO	391.000 CRO	491.000 CRO				487.000 CRO
1991 JUN	410.000 CRO	698.000	420.000 CRO	402.000 CRO	411.000 CRO				419.000 CRO
1991 JUL	504.000 CRO	572.000	443.000 CRO	430.000 CRO	490.000 CRO				447.000 CRO
1991 AUG			413.000 CRO	414.000 CRO	500.000 CRO				506.000 CRO
1991 OCT					492.000 CRO				499.000 CRO
1992 APR	457.000 CRO				592.000				495.000 CRO
1992 MAY	639.000				495.000 CRO				495.000 CRO
1992 OCT	667.000								
SULPHATE (MG/L)									
1991 JAN	75.810	100.430	125.460	73.560	87.440				
1991 FEB	77.190	94.970	80.500	72.970	74.630				85.600
1991 MAR	85.820	100.520	83.300	82.780	88.310				89.580
1991 APR	73.870	91.750	79.610	44.790	75.270				75.070
1991 MAY	59.160	98.190	46.470	41.130	59.250				58.430
1991 JUN	44.610	101.910	55.270	43.090	46.000				46.590
1991 JUL	56.200	94.160	54.800	47.050	58.470				51.310
1991 AUG			46.540	46.960	50.850				50.840
1991 OCT					70.120				70.140
1992 APR	79.120				85.610				69.040
1992 MAY	104.590				56.730				58.360
1992 OCT	95.660								

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHEMISTRY (LABORATORY)									
TURBIDITY (FTU)		DET'N LIMIT = 0.05				GUIDELINE = 1.0 (A1)			
WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED		
1991 JAN		.240							
1991 FEB		.330							
1991 MAR		.150							
1991 APR		.030							
1991 MAY		.140 <T							
1991 JUN		.270							
1991 JUL		.100							
1991 AUG									
1991 SEP	2.900	.070	.030		IRE	.560		.080	
1991 OCT		IRE	.100 <T	.150					
1991 NOV		.070 <T	.100 <T	.190 <T	BOL	.590			
1991 DEC		.240 <T	.190 <T	.090 <T	.110 <T	.680			
1992 MAR				.190 <T	.150 <T	.490 USD			
1992 AUG									

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHEMISTRY (LABORATORY)							
TURBIDITY (FTU)		DET'N LIMIT = 0.05		GUIDELINE = 1.0 (A1)			
1991 JAN	1.120	-	-	-	-	-	-
1991 FEB	1.440	-	-	-	-	-	-
1991 MAR	1.390 RRV	-	-	-	-	-	-
1991 APR	1.090	-	-	-	-	-	-
1991 MAY	1.290	-	-	-	-	-	-
1991 JUN	1.440	-	-	-	-	-	-
1991 JUL	1.800	-	-	-	-	-	-
1991 AUG	-	.050	-	-	1.710	-	-
1991 SEP	.060	-	.130	.070	.070	.070	1.950
1991 OCT	-	BOL	.150 <T	BOL	.250	BOL	.790
1991 NOV	-	-	-	-	-	-	-
1992 MAR	.100 <T	-	-	-	-	-	-
1992 APR	.130 <T	-	.290	.130 <T	.450	.090 <T	2.500
1992 AUG	.170 <T	1.100	-	-	-	-	-
1992 OCT	-	.200 <T	.190 <T	.120 <T	-	.120 <T	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

TURBIDITY (FTU)	CHEMISTRY (LABORATORY)		DET'N LIMIT = 0.05	GUIDELINE = 1.0 (AT)		SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
	U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED			
1991 JAN	.140	-	-	-	-	-	-	.240
1991 FEB	.400	-	-	-	-	-	-	.280
1991 MAR	.280	-	-	-	-	-	-	.160
1991 APR	.060	-	-	-	-	-	-	.020
1991 MAY	.130 <T	-	-	-	-	-	-	.120 <T
1991 JUN	.360	-	-	-	-	-	-	.260
1991 JUL	.300	-	-	-	-	-	-	.080
1991 AUG	-	.040	-	-	1.520	.100	-	-
1991 SEP	-	-	.050	.040	-	-	.060	-
1991 OCT	-	-	.090 <T	.070 <T	1.460 RRV	.130 <T	.380	-
1991 NOV	-	-	.160 <T	.240 <T	-	.280	.550	-
1992 MAY	.220 <T	.210 <T	-	-	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHEMISTRY (LABORATORY)					
TURBIDITY (FTU)		DET'N LIMIT = 0.05		GUIDELINE = 1.0 (A1)	
1991 JAN	.110	.080	.100	.120	.290
1991 FEB	.300	.440	.570	.500	.280
1991 MAR	.210	.160	.300	.270	.160
1991 APR	.120	.040	.090	.160	.180 <T
1991 MAY	.270	.110 <T	.150 <T	.120 <T	.580
1991 JUN	.450	.330	.340	.380	.110
1991 JUL	.100	.070	.060	.110	.260
1991 AUG	.	.040	.040	.180	.330
1991 OCT	.080 <T	.	.	.120 <T	.250
1992 APR	.280	.	.	.430	.
1992 MAY	.	.	.	.	.
1992 OCT	.160 <T	.	.	.230 <T	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAV	ERAMOSA RIVER RAV	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS						
SILVER (UG/L)		DET'N LIMIT = 0.05	GUIDELINE = N/A			
1991 JAN	BOL					
1991 FEB	BOL					
1991 MAR	BOL					
1991 APR	BOL					
1991 MAY	BOL					
1991 JUN	BOL					
1991 JUL	BOL					
1991 AUG	BOL					BOL
1991 SEP		BOL	BOL	BOL	BOL	
1991 OCT		BOL	BOL	ISM	BOL	
1991 NOV		BOL	BOL	BOL	BOL	
1992 MAR		BOL	BOL	BOL	BOL	
1992 AUG						
ALUMINUM (UG/L)						
		DET'N LIMIT = 0.10	GUIDELINE = 100 (A4)			
1991 JAN	1.900					
1991 FEB	1.500					
1991 MAR	.900 <T					
1991 APR	2.400					
1991 MAY	1.800					
1991 JUN	2.300					
1991 JUL	18.000					.740 <T
1991 AUG		2.300	3.300	3.200	3.000	
1991 SEP						
1991 OCT		1.100	1.300	ISM	1.200	
1991 NOV		.500 <T	.410 <T	.380 <T	.810 <T	
1992 MAR		1.400	2.500	5.700	3.600	
1992 AUG	30.000					

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G-WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
SILVER (UG/L)	DET'N LIMIT = 0.05			GUIDELINE = N/A			
1991 JAN	BDL	-	-	-	-	-	BDL
1991 FEB	BDL	-	-	-	-	-	BDL
1991 MAR	BDL	-	-	-	-	-	BDL
1991 APR	BDL	-	-	-	-	-	BDL
1991 MAY	BDL	-	-	-	-	-	BDL
1991 JUN	BDL	-	-	-	-	-	BDL
1991 JUL	BDL	-	-	-	-	-	BDL
1991 AUG	BDL	-	-	-	BDL	-	-
1991 SEP	-	BDL	BDL	BDL	ISM	BDL	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	BDL	BDL	BDL	-	BDL	BDL	-
ALUMINUM (UG/L)							
	DET'N LIMIT = 0.10			GUIDELINE = 100 (AA)			
1991 JAN	2.700	-	-	-	-	-	2.600
1991 FEB	1.600	-	-	-	-	-	1.800
1991 MAR	1.300	-	-	-	-	-	1.500
1991 APR	1.500	-	-	-	-	-	1.700
1991 MAY	2.000	-	-	-	-	-	2.100
1991 JUN	1.500	-	-	-	-	-	2.500
1991 JUL	1.800	-	-	-	-	-	2.200
1991 AUG	-	-	-	-	1.200	0.990 <T	-
1991 SEP	-	0.990 <T	2.800	3.100	-	-	-
1991 NOV	-	-	ISM	ISM	ISM	2.400	-
1992 MAY	3.100	2.900	2.500	2.800	3.200	2.800	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PALISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING	
METALS						
SILVER (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = N/A		
1991 JAN	BDL	BDL	BDL	BDL	BDL	.
1991 FEB	BDL	BDL	BDL	BDL	BDL	.
1991 MAR	BDL	BDL	BDL	BDL	BDL	.
1991 APR	BDL	BDL	BDL	BDL	BDL	.
1991 MAY	BDL	BDL	BDL	BDL	BDL	.
1991 JUN	BDL	BDL	BDL	BDL	BDL	.
1991 JUL	BDL	BDL	BDL	BDL	BDL	.
1991 AUG	.	BDL	BDL	BDL	BDL	.
1991 OCT	.	.	.	.	BDL	.
1992 APR	BDL	.	.	.	BDL	.
1992 MAY	.	.	.	.	BDL	.
1992 OCT	BDL	.	.	.	BDL	.
ALUMINUM (UG/L)						
		DET'N LIMIT = 0.10		GUIDELINE = 100 (44)		
1991 JAN	3,100	2,600	2,700	3,200	3,200	.
1991 FEB	2,300	1,800	2,100	2,500	2,400	.
1991 MAR	1,800	1,400	1,600	1,700	1,900	.
1991 APR	2,400	1,600	2,000	2,000	2,600	.
1991 MAY	2,600	1,800	2,400	2,300	2,700	.
1991 JUN	2,400	1,700	2,100	1,700	2,400	.
1991 JUL	2,700	1,900	2,400	2,700	2,400	.
1991 AUG	.	.	1,600	1,400	2,200	.
1991 OCT	.	.	.	.	2,300	.
1992 APR	1,100	.	.	.	2,200	.
1992 MAY	3,300	.	.	.	3,000	.
1992 OCT	2,000	.	.	.	2,300	.
					2,400	.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS						
ARSENIC (UG/L)						
DET'N LIMIT = 0.10						
GUIDELINE = 25 (A1)						
1991 JAN	.400 <T	.	.	.	.	.
1991 FEB	.340 <T	.	.	.	.	.
1991 MAR	BDL	.	.	.	.	.
1991 APR	BDL	.	.	.	.	.
1991 MAY	BDL	.	.	.	.	.
1991 JUN	.410 <T	.	.	.	.	.
1991 JUL	.440 <T	.	.	.	.	.
1991 AUG	.	BDL	.260 <T	.	.	BDL
1991 SEP	.	.	.	.790 <T	.350 <T	.270 <T
1991 OCT	.	.730 <T	.430 <T	ISM	ISM	1.100
1991 NOV	.	.620 <T	.500 <T	.650 <T	.640 <T	.860 <T
1992 MAR	.	BDL	.410 <T	.440 <T	.630 <T	.200 <T
1992 AUG	.	.560 <T	.	.	.	.
BARLUM (UG/L)						
DET'N LIMIT = 0.05						
GUIDELINE = 1000 (A2)						
1991 JAN	50,000	.	.	.	.	.
1991 FEB	48,000	.	.	.	.	.
1991 MAR	50,000	.	.	.	.	.
1991 APR	48,000	.	.	.	.	.
1991 MAY	53,000	.	.	.	.	.
1991 JUN	50,000	.	.	.	.	.
1991 JUL	48,000	.	.	.	.	.
1991 AUG	34,000	34,000	53,000	.	42,000	110,000
1991 SEP	.	.	.	38,000	.	41,000
1991 OCT	.	.	.	ISM	ISM	44,000
1991 NOV	.	36,000	57,000	ISM	ISM	44,000
1992 MAR	.	40,000	61,000	44,000	48,000	46,000
1992 AUG	41,000	40,000	56,000	42,000	48,000	41,000

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCRECK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
METALS							
ARSENIC (UG/L)		DET'M LIMIT = 0.10		GUIDELINE = 25 (A1)			
1991 JAN		1,400					
1991 FEB		1,300					
1991 MAR		1,400					
1991 APR		1,400					
1991 MAY		1,100					
1991 JUN		1,800					
1991 JUL		1,600					
1991 AUG							
1991 SEP		.430 <T					
1991 OCT	.550 <T		.230 <T	.360 <T		.190 <T	2,200
1991 NOV		.580 <T	.420 <T	.600 <T	1,100	.910 <T	1,100
1991 DEC							
1992 JAN	1,300						
1992 FEB		.640 <T	.450 <T	.580 <T	.730 <T	1,900	7,100
1992 MAR							
1992 APR							
1992 MAY		.850 <T	500 <T	450 <T		1,800	
1992 JUN							
1992 JUL							
1992 AUG							
1992 OCT							
BARIUM (UG/L)							
1991 JAN		DET'M LIMIT = 0.05		GUIDELINE = 1000 (A2)			
1991 FEB	45,000						
1991 MAR	46,000						
1991 APR	42,000						
1991 MAY	48,000						
1991 JUN	52,000						
1991 JUL	49,000						
1991 AUG	42,000						
1991 SEP	50,000						
1991 OCT							
1991 NOV							
1991 DEC							
1992 JAN	57,000		41,000	28,000	51,000	53,000	75,000
1992 FEB		54,000	40,000	26,000	54,000	56,000	66,000
1992 MAR	ISM						
1992 APR	64,000						
1992 MAY		52,000	36,000	24,000	66,000	46,000	87,000
1992 JUN	66,000						
1992 JUL							
1992 AUG		62,000	45,000	28,000		55,000	
1992 OCT							

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW		DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS		DET'N LIMIT = 0.10						
ARSENIC (UG/L)		GUIDELINE = 25 (A1)						
1991 JAN	.400 <T	.	.	.	.	.	.	.260 <T
1991 FEB	.410 <T	.	.	.	.	.	.	.210 <T
1991 MAR	BDL	.	.	.	.	.	.	BDL
1991 APR	BDL	.	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	.	BDL
1991 JUN	.110 <T	.	.	.	.	.	.	.690 <T
1991 JUL	.510 <T	.	.	.	.	.	.	.300 <T
1991 AUG	BDL	.	.	.	.	.140 <T	.	.
1991 SEP	.	.260 <T	.230 <T	.810 <T	.	ISM	.350 <T	.
1991 NOV	.330 <T	.160 <T	.210 <T	ISM	.	BDL	.680 <T	.
1992 MAY	.	.	.	.	.	.	.	.
BARIUM (UG/L)		DET'N LIMIT = 0.05						
		GUIDELINE = 1000 (A2)						
1991 JAN	51.000	.	.	.	.	.	.	47.000
1991 FEB	51.000	.	.	.	.	.	.	49.000
1991 MAR	47.000	.	.	.	.	.	.	47.000
1991 APR	50.000	.	.	.	.	.	.	49.000
1991 MAY	55.000	.	.	.	.	.	.	53.000
1991 JUN	50.000	.	.	.	.	.	.	49.000
1991 JUL	49.000	.	.	.	.	.	.	46.000
1991 AUG	69.000	.	.	.	47.000	37.000	.	.
1991 SEP	.	68.000	31.000	ISM	.	ISM	58.000	.
1991 NOV	70.000	70.000	35.000	ISM	.	42.000	ISM	.
1992 MAY	54.000	.	.	.	.	.	64.000	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

DATE TREATED	WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM				DIST. SYSTEM				DIST. SYSTEM			
			VICTORIA RD FREE FLOW		STANDING		VICTORIA RD FREE FLOW		STANDING		IMPERIAL RD N FREE FLOW		IMPERIAL RD N STANDING	
METALS														
ARSENIC (UG/L)			DET'N LIMIT = 0.10				GUIDELINE = 25 (A1)							
1991 JAN	540	<T	220	<T	370	<T	490	<T	350	<T	350	<T	360	<T
1991 FEB	270	<T	480	<T	290	<T	260	<T	310	<T	310	<T	150	<T
1991 MAR	BOL		BOL		550	<T	340	<T	BOL		BOL		360	<T
1991 APR	210	<T	280	<T	120	<T	BOL		360	<T	360	<T	BOL	
1991 MAY	BOL		BOL		BOL		BOL		BOL		BOL		BOL	
1991 JUN	650	<T	300	<T	440	<T	410	<T	440	<T	440	<T	560	<T
1991 JUL	350	<T	220	<T	260	<T	350	<T	220	<T	220	<T	190	<T
1991 AUG					240	<T	390	<T	1,000	<T	1,000	<T	320	<T
1991 OCT	420	<T							1,100		1,100		930	<T
1992 APR			220	<T					1,000	<T	1,000	<T	870	<T
1992 MAY														
1992 OCT	1,200													
BARIUM (UG/L)			DET'N LIMIT = 0.05				GUIDELINE = 1000 (A2)							
1991 JAN	50,000		51,000		52,000		50,000		49,000		49,000		49,000	
1991 FEB	50,000		51,000		47,000		48,000		49,000		49,000		50,000	
1991 MAR	47,000		48,000		42,000		48,000		50,000		50,000		52,000	
1991 APR	49,000		51,000		48,000		53,000		49,000		49,000		56,000	
1991 MAY	53,000		53,000		55,000		57,000		55,000		55,000		47,000	
1991 JUN	51,000		51,000		48,000		50,000		49,000		49,000		48,000	
1991 JUL	50,000		48,000		45,000		47,000		37,000		45,000		53,000	
1991 AUG									51,000		45,000		39,000	
1991 OCT	41,000								45,000		45,000		53,000	
1992 APR			56,000											
1992 MAY														
1992 OCT	56,000													

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTNE WELL PRETREATED	MEMBRO WELL PRETREATED
BODEN (UG/L)							
METALS							
		DET'N LIMIT = 2.00		GUIDELINE = 5000 (A1)			
1991 JAN		18,000 <T					
1991 FEB		26,000					
1991 MAR		14,000 <T					
1991 APR		18,000 <T					
1991 MAY		9,200 <T					
1991 JUN		11,000 <T					
1991 JUL		23,000					
1991 AUG		15,000 <T					32,000
1991 SEP			20,000 <T	18,000 <T	11,000 <T	46,000	
1991 OCT				52,000			
1991 NOV			14,000 <T	ISM	ISM	43,000	
1992 MAR			19,000 <T	23,000	15,000 <T	50,000	
1992 AUG		17,000 <T	23,000	18,000 <T	22,000	38,000	
BERYLLIUM (UG/L)							
		DET'N LIMIT = 0.05		GUIDELINE = 6800 (D4)			
1991 JAN		BDL					
1991 FEB		BDL					
1991 MAR		BDL					
1991 APR		BDL					
1991 MAY		BDL					
1991 JUN		BDL					
1991 JUL		BDL					
1991 AUG		BDL					BDL
1991 SEP		BDL	BDL		BDL	BDL	
1991 OCT		BDL	BDL	.090 <T	ISM	BDL	
1991 NOV		BDL	BDL	ISM	ISM	BDL	
1992 MAR		BDL	BDL	BDL	BDL	BDL	.070 <T
1992 AUG		BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALIFORNIA PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
METALS							
BORON (UG/L)		DET'M LIMIT = 2.00		GUIDELINE = 5000 (A1)			
1991 JAN		46,000					
1991 FEB		35,000					
1991 MAR		20,000 <T					
1991 APR		45,000					
1991 MAY		18,000 <T					
1991 JUN		18,000 <T					
1991 JUL		16,000 <T					
1991 AUG		11,000 <T			24,000		
1991 SEP	38,000		42,000	23,000		40,000	22,000
1991 OCT		18,000 <T	50,000	25,000	59,000	36,000	26,000
1991 NOV	ISM						
1992 MAR	40,000						
1992 APR		16,000 <T	38,000	20,000 <T	18,000 <T	36,000	17,000 <T
1992 AUG	39,000		47,000	24,000		39,000	
1992 OCT		36,000					
BERYLLIUM (UG/L)							
		DET'M LIMIT = 0.05		GUIDELINE = 6800 (D4)			
1991 JAN		BOL					
1991 FEB		.060 <T					
1991 MAR		BOL					
1991 APR		BOL					
1991 MAY		BOL					
1991 JUN		BOL					
1991 JUL		BOL					
1991 AUG		BOL			BOL		
1991 SEP	BOL		BOL	BOL	BOL	BOL	BOL
1991 OCT		BOL	.060 <T	BOL	BOL	BOL	BOL
1991 NOV	ISM						
1992 MAR	BOL	BOL	BOL	BOL	BOL	BOL	BOL
1992 APR							
1992 AUG	BOL	BOL	BOL	BOL	BOL	BOL	BOL
1992 OCT		.070 <T	BOL	BOL		BOL	

TABLE 4
ORINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

METALS							
BORON (UG/L)							
U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
DET'N LIMIT = 2.00				GUIDELINE = 5000 (A1)			
1991 JAN	46.000	.	.	.	.	.	31.000
1991 FEB	34.000	.	.	.	.	.	15.000 <T
1991 MAR	23.000	.	.	.	.	.	17.000 <T
1991 APR	51.000	.	.	.	.	.	38.000
1991 MAY	20.000 <T	.	.	.	.	.	13.000 <T
1991 JUN	22.000	.	.	.	.	.	10.000 <T
1991 JUL	28.000	.	.	.	.	.	21.000
1991 AUG	32.000	.	.	38.000	190.000	.	.
1991 SEP	.	37.000	36.000	ISM	ISM	49.000	.
1991 NOV	.	ISM	ISM	ISM	ISM	ISM	.
1992 MAY	38.000	50.000	42.000	.	230.000	54.000	.
DET'N LIMIT = 0.05				GUIDELINE = 6800 (04)			
BERYLLIUM (UG/L)							
1991 JAN	.090 <T	.	.	.	.	.	.060 <T
1991 FEB	BOL	.	.	.	.	.	BOL
1991 MAR	BOL	.	.	.	.	.	BOL
1991 APR	BOL	.	.	.	.	.	BOL
1991 MAY	BOL	.	.	.	.	.	BOL
1991 JUN	BOL	.	.	.	.	.	BOL
1991 JUL	.070 <T	.	.	.	.	.	BOL
1991 AUG	BOL	.	.	BOL	BOL	.	.
1991 SEP	BOL	BOL	BOL	ISM	ISM	BOL	.
1991 NOV	ISM	ISM	ISM	ISM	ISM	ISM	.
1992 MAY	.100 <T	.160 <T	.110 <T	.	.170 <T	.080 <T	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
MFT ¹					
BORON (UG/L)		DET ¹ N LIMIT = 2.00		GUIDELINE = 5000 (A1)	
1991 JAN	46,000	49,000	44,000	36,000	
1991 FEB	17,000 <T	28,000	32,000	17,000 <T	34,000
1991 MAR	24,000	26,000	26,000	24,000	24,000
1991 APR	22,000	45,000	59,000	43,000	47,000
1991 MAY	16,000 <T	21,000	16,000 <T	18,000 <T	19,000 <T
1991 JUN	13,000 <T	21,000	16,000 <T	16,000 <T	38,000
1991 JUL	26,000	32,000	23,000	23,000	12,000 <T
1991 AUG			21,000	140,000	130,000
1991 OCT				51,000	20,000 <T
1992 APR	14,000 <T	24,000		21,000	97,000
1992 MAY				32,000	23,000
1992 OCT	35,000				
BERYLLIUM (UG/L)					
		DET ¹ N LIMIT = 0.05		GUIDELINE = 6800 (D4)	
1991 JAN	.100 <T	.090 <T	.090 <T	BOL	BOL
1991 FEB	BOL	BOL	BOL	BOL	BOL
1991 MAR	BOL	BOL	BOL	BOL	BOL
1991 APR	BOL	BOL	BOL	BOL	BOL
1991 MAY	BOL	BOL	BOL	BOL	BOL
1991 JUN	BOL	BOL	BOL	BOL	BOL
1991 JUL	.080 <T	BOL	BOL	BOL	BOL
1991 AUG		BOL	BOL	.070 <T	BOL
1991 OCT				.090 <T	BOL
1992 APR	BOL			BOL	BOL
1992 MAY		.100 <T		.090 <T	BOL
1992 OCT	BOL				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW		ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS								
CADMIUM (UG/L)								
			DET'N LIMIT = 0.05		GUIDELINE = 5.0 (A1)			
1991 JAN		.140 <T						
1991 FEB		.070 <T						
1991 MAR		.130 <T						
1991 APR		.100 <T						
1991 MAY		.130 <T						
1991 JUN		.160 <T						
1991 JUL		.310 <T						
1991 AUG		BDL						.140 <T
1991 SEP			.080 <T	.160 <T	BDL	.070 <T	BDL	
1991 OCT			.170 <T	.130 <T	ISM	ISM	.060 <T	
1991 NOV			.110 <T	.100 <T	BDL	.100 <T	BDL	
1992 MAR		BDL	.140 <T	.120 <T	BDL	.110 <T	.090 <T	
1992 AUG								
COBALT (UG/L)								
			DET'N LIMIT = 0.02		GUIDELINE = N/A			
1991 JAN		.250 <T						
1991 FEB		.040 <T						
1991 MAR		BDL						
1991 APR		.050 <T						
1991 MAY		.060 <T						
1991 JUN		BDL						
1991 JUL		BDL						
1991 AUG								BDL
1991 SEP			.050 <T	.050 <T		.060 <T	.090 <T	
1991 OCT					BDL			
1991 NOV			.100 <T	.200 <T	ISM	ISM	.230 <T	
1992 MAR			.490 <T	.550 <T	.560 <T	.470 <T	.630 <T	
1992 AUG		.220 <T	.460 <T	.230 <T	.130 <T	.220 <T	.560 <T	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

METALS												
CADMIUM (UG/L)		DET'N LIMIT = 0.05			GUIDELINE = 5.0 (A1)							
SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED					
1991 JAN		BDL										
1991 FEB		.360 <T										
1991 MAR		BDL										
1991 APR		BDL										
1991 MAY		BDL										
1991 JUN		.100 <T										
1991 JUL		.350 <T										
1991 AUG		.060 <T										
1991 SEP			BDL	BDL	BDL	.080 <T	BDL					
1991 OCT			BDL	BDL	BDL	BDL	BDL					
1991 NOV	ISM											
1992 MAR	.110 <T											
1992 APR		.090 <T	BDL	BDL	BDL	.060 <T	BDL					
1992 AUG	.070 <T											
1992 OCT		.120 <T	.060 <T	.070 <T		.220 <T						
		DET'N LIMIT = 0.02			GUIDELINE = N/A							
COBALT (UG/L)												
1991 JAN		.360 <T										
1991 FEB		.250 <T										
1991 MAR		BDL										
1991 APR		.160 <T										
1991 MAY		.510 <T										
1991 JUN		BDL										
1991 JUL		BDL										
1991 AUG												
1991 SEP		.780 <T										
1991 OCT			.220 <T	2.400		.350 <T						
1991 NOV	ISM		.160 <T	2.200		.140 <T						
1992 MAR	1.200											
1992 APR		.390 <T	.480 <T	2.600	2.900	.880 <T	4.600					
1992 AUG	.770 <T											
1992 OCT		.930 <T	.770 <T	3.100		1.300						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
Cadmium (ug/L)		DET'N LIMIT = 0.05		GUIDELINE = 5.0 (A1)			
1991 JAN	.080 <T	-	-	-	-	-	.080 <T
1991 FEB	BDL	-	-	-	-	-	.060 <T
1991 MAR	BDL	-	-	-	-	-	.130 <T
1991 APR	BDL	-	-	-	-	-	.090 <T
1991 MAY	BDL	-	-	-	-	-	.130 <T
1991 JUN	.210 <T	-	-	-	-	-	.180 <T
1991 JUL	.500 <T	-	-	-	-	-	.280 <T
1991 AUG	-	-	-	-	-	-	-
1991 SEP	-	.080 <T	.240 <T	.060 <T	.090 <T	.060 <T	-
1991 NOV	-	-	ISM	ISM	ISM	ISM	-
1992 MAY	.130 <T	.170 <T	.320 <T	.120 <T	BDL	.130 <T	-
Cobalt (ug/L)		DET'N LIMIT = 0.02		GUIDELINE = M/A			
1991 JAN	.420 <T	-	-	-	-	-	.210 <T
1991 FEB	.130 <T	-	-	-	-	-	BDL
1991 MAR	BDL	-	-	-	-	-	BDL
1991 APR	.230 <T	-	-	-	-	-	BDL
1991 MAY	.110 <T	-	-	-	-	-	.060 <T
1991 JUN	.120 <T	-	-	-	-	-	BDL
1991 JUL	BDL	-	-	-	-	-	BDL
1991 AUG	-	-	-	-	-	-	-
1991 SEP	1.400	-	-	.430 <T	BDL	-	-
1991 NOV	-	.540 <T	.140 <T	ISM	ISM	1.500	-
1992 MAY	.460 <T	4.100	.520 <T	ISM	ISM	2.000	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G. WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CADMIUM (UG/L)					
		DET'N LIMIT = 0.05		GUIDELINE = 5.0 (M)	
1991 JAN	.060 <T	.080 <T	.080 <T	.070 <T	.060 <T
1991 FEB	BDL	BDL	BDL	BDL	.160 <T
1991 MAR	.060 <T	.060 <T	.060 <T	.070 <T	.120 <T
1991 APR	.080 <T	.100 <T	.090 <T	.100 <T	.110 <T
1991 MAY	BDL	BDL	BDL	BDL	BDL
1991 JUN	.160 <T	.170 <T	.150 <T	.170 <T	.160 <T
1991 JUL	.370 <T	.310 <T	.280 <T	.220 <T	.170 <T
1991 AUG	.200 <T	.200 <T	.090 <T	.110 <T	.090 <T
1991 OCT	-	-	-	-	.110 <T
1992 APR	.080 <T	.110 <T	-	-	BDL
1992 MAY	-	-	-	-	-
1992 OCT	.190 <T	-	-	-	.170 <T
COBALT (UG/L)					
		DET'N LIMIT = 0.02		GUIDELINE = N/A	
1991 JAN	.530 <T	.380 <T	.520 <T	.270 <T	.530 <T
1991 FEB	.440 <T	.150 <T	.080 <T	.030 <T	.460 <T
1991 MAR	.180 <T	BDL	BDL	BDL	.040 <T
1991 APR	.420 <T	.180 <T	.080 <T	.180 <T	.430 <T
1991 MAY	.370 <T	.260 <T	.230 <T	.190 <T	.330 <T
1991 JUN	BDL	BDL	BDL	BDL	BDL
1991 JUL	BDL	BDL	BDL	BDL	.060 <T
1991 AUG	-	-	BDL	BDL	BDL
1991 OCT	-	-	-	-	.090 <T
1992 APR	.350 <T	.440 <T	-	-	.110 <T
1992 MAY	-	-	-	-	.440 <T
1992 OCT	.910 <T	-	-	-	.830 <T

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS						
CHROMIUM (UG/L)		DET'N LIMIT = 0.50	GUIDELINE = 50.0 (A1)			
1991 JAN	1,600 <T					
1991 FEB	4,800 <T					
1991 MAR	1,200 <T					
1991 APR	2,300 <T					
1991 MAY	2,620 <T					
1991 JUN	900 <T					
1991 JUL	5,600					
1991 AUG						
1991 SEP						
1991 OCT						
1991 NOV						
1992 MAR						
1992 AUG						
COPPER (UG/L)						
1991 JAN	1,900 <T					
1991 FEB	1,100 <T					
1991 MAR	1,720 <T					
1991 APR	1,800 <T					
1991 MAY	1,200 <T					
1991 JUN	1,700 <T					
1991 JUL	1,500 <T					
1991 AUG						
1991 SEP						
1991 OCT						
1991 NOV						
1992 MAR						
1992 AUG						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

CHROMIUM (UG/L)	METALS	DET'N LIMIT = 0.50					GUIDELINE = 50.0 (A1)				
		SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOONEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED		
1991 JAN			5.400								
1991 FEB			7.000								
1991 MAR			2.900 <T								
1991 APR			8.400								
1991 MAY			.560 <T								
1991 JUN			BDL								
1991 JUL			1.200 <T				1.600 <T				
1991 AUG				1.100 <T							
1991 SEP		.630 <T		BDL		.520 <T		.870 <T		BDL	
1991 OCT				1.500 <T	1.600 <T	.600 <T	7.200	BDL	1.700 <T		
1991 NOV	ISM										
1992 MAR	BDL			BDL		BDL	BDL	BDL		BDL	
1992 APR											
1992 AUG	BDL		6.200	.4, 100 <T	2,300 <T	.840 <T		2,000 <T			
1992 OCT											
COPPER (UG/L)											
DET'N LIMIT = 0.50											
GUIDELINE = 1000 (A3)											
1991 JAN			1.300 <T								
1991 FEB			.630 <T								
1991 MAR			.510 <T								
1991 APR			.930 <T								
1991 MAY			1.000 <T								
1991 JUN			1.200 <T								
1991 JUL			1.000 <T								
1991 AUG			1.400 <T				BDL				
1991 SEP				BDL		.530 <T		1.700 <T		.580 <T	
1991 OCT			2.700 <T	BDL		BDL	1.800 <T	1.600 <T		1,100 <T	
1991 NOV											
1992 MAR	ISM										
1992 APR	1.400 <T										
1992 AUG	1.600 <T		BDL	2.100 <T	BDL	BDL	.910 <T	.980 <T		.860 <T	
1992 OCT			.580 <T	1.800 <T	.540 <T	BDL		1.600 <T			

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
CHROMIUM (UG/L)							
		DET'N LIMIT = 0.50		GUIDELINE = 50.0 (A1)			
1991 JAN	4.800 <T	.	.	.	.	.	4.000 <T
1991 FEB	4.200 <T	.	.	.	.	.	1.200 <T
1991 MAR	2.900 <T	.	.	.	.	.	3.300 <T
1991 APR	9.200	.	.	.	.	.	8.700
1991 MAY	BDL	.	.	.	.	.	1.700 <T
1991 JUN	.750 <T	.	.	.	.	.	.820 <T
1991 JUL	6.300	.	.	.	.	.	5.300
1991 AUG	.	.	.	4.900 <T	1.200 <T	.	.
1991 SEP	.	.510 <T	.810 <T	ISM	ISM	BDL	.
1991 NOV	.	ISM	ISM	ISM	ISM	ISM	.
1992 MAY	BDL	1.200 <T	1.300 <T	.	1.600 <T	.930 <T	.
		DET'N LIMIT = 0.50		GUIDELINE = 1000 (A3)			
COPPER (UG/L)							
1991 JAN	1.100 <T	.	.	.	.	.	1.600 <T
1991 FEB	.640 <T	.	.	.	.	.	1.600 <T
1991 MAR	.640 <T	.	.	.	.	.	1.600 <T
1991 APR	2.200 <T	.	.	.	.	.	4.400 <T
1991 MAY	1.400 <T	.	.	.	.	.	1.600 <T
1991 JUN	1.800 <T	.	.	.	.	.	2.100 <T
1991 JUL	1.000 <T	.	.	.	.	.	2.200 <T
1991 AUG	.	.	.	.	.	.	.
1991 SEP	.	.980 <T	.	.630 <T	9.000	.	.
1991 NOV	.	2.400 <T	.680 <T	ISM	ISM	1.100 <T	.
1992 MAY	.850 <T	1.600 <T	2.600 <T	.760 <T	.740 <T	1.600 <T	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW		DIST. SYSTEM VICTORIA RD STANDING		DIST. SYSTEM IMPERIAL RD N FREE FLOW		DIST. SYSTEM IMPERIAL RD N STANDING	
		DET'N LIMIT = 0.50		DET'N LIMIT = 0.50		GUIDELINE = 50.0 (A1)		GUIDELINE = 50.0 (A1)	
METALS									
CHROMIUM (UG/L)									
1991 JAN	5.100	5.400	5.700	4.500 <T	2.900 <T	5.000 <T	5.000 <T	5.000 <T	5.000 <T
1991 FEB	BOL	3.200 <T	4.000 <T	3.300 <T	BOL	3.000 <T	3.000 <T	3.000 <T	3.000 <T
1991 MAR	3.000 <T	3.700 <T	2.900 <T	3.100 <T	1.200 <T	8.000	8.000	8.300	8.300
1991 APR	1.300 <T	8.300	9.000	8.700	8.000	1.400 <T	1.400 <T	1.300 <T	1.300 <T
1991 MAY	BOL	BOL	1.300 <T	1.600 <T	1.600 <T	1.400 <T	1.400 <T	1.300 <T	1.300 <T
1991 JUN	BOL	.830 <T	9.000 <T	960 <T	960 <T	1.420 <T	1.420 <T	1.300 <T	1.300 <T
1991 JUL	6.600	6.300	6.100	6.300	6.300	5.000 <T	5.000 <T	4.770 <T	4.770 <T
1991 AUG	-	-	4.500 <T	3.900 <T	3.900 <T	3.000 <T	3.000 <T	4.000 <T	4.000 <T
1991 OCT	-	-	-	-	-	6.100	6.100	BOL	BOL
1992 APR	BOL	BOL	-	-	-	BOL	BOL	BOL	BOL
1992 MAY	-	-	-	-	-	6.000	6.000	2.000 <T	2.000 <T
1992 OCT	6.100	-	-	-	-	6.000	6.000	2.000 <T	2.000 <T
COPPER (UG/L)									
DET'N LIMIT = 0.50									
1991 JAN	1.400 <T	.930 <T	78.000	1300.000	32.000	440.000	440.000	440.000	440.000
1991 FEB	1.100 <T	.850 <T	130.000	510.000	64.000	300.000	300.000	300.000	300.000
1991 MAR	.840 <T	.610 <T	73.000	650.000	29.000	450.000	450.000	450.000	450.000
1991 APR	1.400 <T	.810 <T	89.000	1600.000 RRV	31.000	470.000	470.000	470.000	470.000
1991 MAY	1.700 <T	1.300 <T	67.000	570.000	40.000	160.000	160.000	160.000	160.000
1991 JUN	1.500 <T	1.400 <T	79.000	520.000	28.000	330.000	330.000	330.000	330.000
1991 JUL	1.400 <T	.780 <T	120.000	480.000	51.000	370.000	370.000	370.000	370.000
1991 AUG	-	-	92.000	410.000	47.000	340.000	340.000	340.000	340.000
1991 OCT	2.100 <T	-	-	-	130.000	23.000	23.000	23.000	23.000
1992 APR	-	-	-	-	26.000	260.000	260.000	260.000	260.000
1992 MAY	-	-	-	-	-	-	-	-	-
1992 OCT	.720 <T	-	-	-	-	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW		ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED		ARKEL SPRING #7 PRETREATED		ARKEL SPRING #8 PRETREATED		CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS											
IRON (UG/L)			DET'N LIMIT = 6.00			GUIDELINE = 300 (A3)					
1991 JAN	BDL										
1991 FEB	BDL										
1991 MAR	BDL										
1991 APR	BDL										
1991 MAY	BDL										
1991 JUN	BDL										
1991 JUL	BDL										
1991 AUG		66,000									
1991 SEP			BDL					BDL	85,000		BDL
1991 OCT											
1991 NOV			BDL					6,100 <T	ISM	95,000	
1992 MAR			BDL	BDL				BDL	BDL	76,000	
1992 AUG		100,000	BDL	BDL				BDL	BDL	28,000 <T	
MERCURY (UG/L)			DET'N LIMIT = 0.02			GUIDELINE = 1.0 (A1)					
1991 JAN	BDL										
1991 FEB	BDL										
1991 MAR	BDL										
1991 APR	BDL										
1991 MAY	BDL										
1991 JUN	BDL										
1991 JUL	BDL										
1991 AUG		BDL									
1991 SEP			BDL					BDL	BDL		BDL
1991 OCT											
1991 NOV			BDL	BDL				BDL	BDL	BDL	
1992 MAR			BDL	BDL				BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL				BDL	BDL	BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

IRON (UG/L)	METALS							
	SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	LALICO WELL PRETREATED	DOWNS WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
DET'N LIMIT = 6.00								
GUIDELINE = 300 (A3)								
1991 JAN		140,000						
1991 FEB		120,000						
1991 MAR		100,000						
1991 APR		150,000						
1991 MAY		140,000						
1991 JUN		140,000						
1991 JUL		160,000						
1991 AUG			BDL			190,000		
1991 SEP	12,000 <T			10,000 <T	8,700 <T		BDL	200,000
1991 OCT			BDL	12,000 <T	BDL	71,000	BDL	110,000
1991 NOV	ISM							
1992 MAR	BDL							
1992 APR		130,000	7,700 <T	11,000 <T	7,300 <T	62,000	12,000 <T	180,000
1992 AUG	7,600 <T		12,000 <T	BDL	7,600 <T		BDL	
1992 OCT		BDL						
DET'N LIMIT = 0.02								
GUIDELINE = 1.0 (A1)								
MERCURY (UG/L)								
1991 JAN		BDL						
1991 FEB		BDL						
1991 MAR		BDL						
1991 APR		BDL						
1991 MAY		BDL						
1991 JUN		BDL						
1991 JUL		BDL						
1991 AUG			BDL					
1991 SEP	BDL			BDL	BDL	BDL	BDL	BDL
1991 OCT			BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV								
1992 MAR	0.40 <T							
1992 APR	BDL			BDL	BDL	BDL	BDL	BDL
1992 AUG	BDL							
1992 OCT		BDL		BDL	BDL		BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

METALS									
IRON (UG/L)		DET'N LIMIT = 6.00			GUIDELINE = 300 (A3)				
1991 JAN	17,000 <T	*	*	*	*	*	*	*	BDL
1991 FEB	7,900 <T	*	*	*	*	*	*	*	BDL
1991 MAR	6,800 <T	*	*	*	*	*	*	*	BDL
1991 APR	8,100 <T	*	*	*	*	*	*	*	BDL
1991 MAY	11,000 <T	*	*	*	*	*	*	*	BDL
1991 JUN	16,000 <T	*	*	*	*	*	*	*	BDL
1991 JUL	7,400 <T	*	*	*	*	*	*	*	BDL
1991 AUG		BDL	16,000 <T	14,000 <T	160,000	24,000 <T	41,000 <T		
1991 SEP			ISM	ISM	ISM	ISM	ISM		
1991 NOV									
1992 MAY	14,000 <T	16,000 <T	10,000 <T	18,000 <T		27,000 <T	63,000		
		DET'N LIMIT = 0.02			GUIDELINE = 1.0 (A1)				
MERCURY (UG/L)									
1991 JAN	BDL	*	*	*	*	*	*	*	BDL
1991 FEB	BDL	*	*	*	*	*	*	*	BDL
1991 MAR	BDL	*	*	*	*	*	*	*	BDL
1991 APR	BDL	*	*	*	*	*	*	*	BDL
1991 MAY	BDL	*	*	*	*	*	*	*	BDL
1991 JUN	BDL	*	*	*	*	*	*	*	BDL
1991 JUL	BDL	*	*	*	*	*	*	*	BDL
1991 AUG		BDL			BDL	BDL			
1991 SEP			BDL	BDL	BDL	BDL	BDL	BDL	
1991 NOV			BDL	BDL	BDL	BDL	BDL	BDL	
1992 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
METALS					
IRON (UG/L)		DET'N LIMIT = 6.00		GUIDELINE = 300 (A3)	
1991 JAN	23,000 <T	14,000 <T	7,500 <T	BOL	25,000 <T
1991 FEB	28,000 <T	480,000	BOL	BOL	23,000 <T
1991 MAR	19,000 <T	10,000 <T	13,000 <T	BOL	26,000 <T
1991 APR	29,000 <T	7,200 <T	8,500 <T	BOL	23,000 <T
1991 MAY	30,000 <T	15,000 <T	6,500 <T	BOL	31,000 <T
1991 JUN	36,000 <T	16,000 <T	9,000 <T	BOL	30,000 <T
1991 JUL	21,000 <T	8,900 <T	BOL	BOL	30,000 <T
1991 AUG			BOL	BOL	6,700 <T
1991 OCT	BOL			BOL	17,000 <T
1992 APR		14,000 <T		21,000 <T	17,000 <T
1992 MAY				24,000 <T	20,000 <T
1992 OCT	BOL			16,000 <T	9,600 <T
MERCURY (UG/L)		DET'N LIMIT = 0.02		GUIDELINE = 1.0 (A1)	
1991 JAN	BOL				
1991 FEB	BOL				
1991 MAR	BOL				
1991 APR	BOL				
1991 MAY	BOL				
1991 JUN	BOL				
1991 JUL	BOL				
1992 APR	BOL				
1992 MAY	BOL				
1992 OCT	BOL				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERANOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
MANGANESE (UG/L)							
		DET'N LIMIT = 0.05		GUIDELINE = 50.0 (A3)			
1991 JAN		.150 <T	-	-	-	-	-
1991 FEB		.080 <T	-	-	-	-	-
1991 MAR		.070 <T	-	-	-	-	-
1991 APR		.110 <T	-	-	-	-	-
1991 MAY		.150 <T	-	-	-	-	-
1991 JUN		.110 <T	-	-	-	-	-
1991 JUL		.160 <T	-	-	-	-	-
1991 AUG	29.000	.100 <T	BOL	.150 <T	.060 <T	14.000	4.300
1991 SEP		.150 <T	BOL	.150	ISM	15.000	-
1991 OCT		.110 <T	.070 <T	.160 <T	.210 <T	16.000	-
1992 MAR	45.000	.090 <T	.080 <T	BOL	.130 <T	17.000	-
1992 AUG							
		DET'N LIMIT = 0.05		GUIDELINE = N/A			
MOLYBDENUM (UG/L)							
1991 JAN		.450 <T	-	-	-	-	-
1991 FEB		.520	-	-	-	-	-
1991 MAR		.520	-	-	-	-	-
1991 APR		.490 <T	-	-	-	-	-
1991 MAY		.520	-	-	-	-	-
1991 JUN		.290 <T	-	-	-	-	-
1991 JUL		.510	-	-	-	-	-
1991 AUG	.370 <T	.510	.870	.450 <T	.440 <T	2.000	1.200
1991 SEP		.510	.890	ISM	ISM	1.800	-
1991 OCT		.510	.870	.550	.550	1.900	-
1992 MAR		.630	.870	.600	.420 <T	1.900	-
1992 AUG	.420 <T	.520	.870	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

DATE	SWEET WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
MANGANESE (UG/L)								
DET'M LIMIT = 0.05								
1991 JAN	.	3.400	.	.	.	.	.	.
1991 FEB	.	3.200	.	.	.	.	.	.
1991 MAR	.	2.800	.	.	.	.	.	.
1991 APR	.	3.700	.	.	.	.	.	.
1991 MAY	.	3.300	.	.	.	.	.	.
1991 JUN	.	3.300	.	.	.	.	.	.
1991 JUL	.	3.300	.	.	.	.	.	.
1991 AUG	.	.	6.000	.	.	6.500	.	.
1991 SEP	2.300	.	.	18.000	8.700	.	1.100	19.000
1991 OCT	.	.	13.000	19.000	8.000	4.800	.760	16.000
1991 NOV	ISH	.	.	.	.	.	.	.
1992 MAR	2.300	.	.	.	.	.	.	.
1992 JUL	.	3.000	21.000	17.000	7.800	7.500	2.300	33.000
1992 AUG	2.000	.	.	.	.	.	.	.
1992 OCT	.	4.000	29.000	14.000	8.700	.	2.500	.
MOLYBDENUM (UG/L)								
GUIDELINE = N/A								
DET'M LIMIT = 0.05								
1991 JAN	.	1.000	.	.	.	.	.	.
1991 FEB	.	1.000	.	.	.	.	.	.
1991 MAR	.	.870	.	.	.	.	.	.
1991 APR	.	1.200	.	.	.	.	.	.
1991 MAY	.	1.200	.	.	.	.	.	.
1991 JUN	.	.980	.	.	.	.	.	.
1991 JUL	.	1.200	.	.	.	.	.	.
1991 AUG	.	.	.590	.	.	.450 <T	.	.
1991 SEP	1.700	.	.	1.300	1.600	.	2.700	2.100
1991 OCT	.	.	.630	1.300	1.400	.630	2.300	2.100
1991 NOV	ISH	.	.	.	.	.	.	.
1992 MAR	1.900	.	.	.	.	.	.	.
1992 APR	.	1.100	.630	1.200	1.400	.610	2.400	3.300
1992 AUG	2.100	.	.	.	.	.	.	.
1992 OCT	.	1.400	.790	1.200	1.600	.	2.200	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACD WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
MANGANESE (UG/L)							
METALS							
DET'N LIMIT = 0.05							
GUIDELINE = 50.0 (A3)							
1991 JAN	4.300	-	-	-	-	-	.110 <T
1991 FEB	3.900	-	-	-	-	-	.100 <T
1991 MAR	3.400	-	-	-	-	-	.080 <T
1991 APR	4.100	-	-	-	-	-	.130 <T
1991 MAY	3.800	-	-	-	-	-	BOL
1991 JUN	4.000	-	-	-	-	-	.060 <T
1991 JUL	3.100	-	-	-	-	-	.120 <T
1991 AUG	-	-	-	-	-	-	-
1991 SEP	-	5.300	3.200	42.000	2.000	12.000	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	4.200	19.000	3.200	-	2.100	13.000	-
MOLYBDENUM (UG/L)							
DET'N LIMIT = 0.05							
GUIDELINE = N/A							
1991 JAN	1.300	-	-	-	-	-	.440 <T
1991 FEB	1.300	-	-	-	-	-	.460 <T
1991 MAR	1.300	-	-	-	-	-	.450 <T
1991 APR	1.300	-	-	-	-	-	.460 <T
1991 MAY	1.500	-	-	-	-	-	.430 <T
1991 JUN	1.300	-	-	-	-	-	.440 <T
1991 JUL	1.400	-	-	-	-	-	.440 <T
1991 AUG	-	-	-	.570	.440 <T	-	-
1991 SEP	-	2.700	4.900	ISM	ISM	3.000	-
1991 NOV	-	ISM	ISM	ISM	.540	ISM	-
1992 MAY	1.400	1.100	3.900	-	-	2.700	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED		U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD STANDING
MANGANESE (UG/L)						
DET'N LIMIT = 0.05						
GUIDELINE = 50.0 (A3)						
1991 JAN	2.800	4.100		5.000	3.300	
1991 FEB	2.300	7.800	3.300	4.200	2.100	2.600
1991 MAR	2.500	3.800	3.800	4.700	3.200	3.200
1991 APR	2.600	3.800	4.600	1.100	2.600	3.000
1991 MAY	1.400	4.000	1.200	.290 <T	1.300	1.900
1991 JUN	.950	3.700	3.100	1.900	.900	1.500
1991 JUL	1.200	3.500		.960	1.400	.970
1991 AUG			.300 <T	.240 <T	2.100	2.800
1991 OCT					1.100	1.400
1992 APR	.130 <T				2.800	2.000
1992 MAY		3.900				
1992 OCT	3.800				1.400	1.800
MOLYBDENUM (UG/L)						
DET'N LIMIT = 0.05						
GUIDELINE = N/A						
1991 JAN	.910	1.400		1.000	1.100	
1991 FEB	.960	1.400	.910	.920	.930	.930
1991 MAR	.930	1.300	.850	.840	1.100	1.100
1991 APR	1.100	1.500	1.000	.520	1.100	1.000
1991 MAY	.900	1.500	.590	.420 <T	.740	.910
1991 JUN	.480 <T	1.300	.730	.540	.520	.600
1991 JUL	.680	1.300	.490 <T	.380 <T	.640	.490 <T
1991 AUG			.410 <T	.440 <T	.380 <T	.440 <T
1991 OCT					.870	.810
1992 APR	.560				1.000	.710
1992 MAY		1.500				
1992 OCT	1.500				.750	.750

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

WOODS PUMP RAW	ERANOSA RIVER RAW	ARKELE SPRING #6 PRETREATED	ARKELE SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS						
NICKEL (UG/L)		DET'N LIMIT = 0.20	GUIDELINE = 350 (03)			
1991 JAN	BOL					
1991 FEB	BOL					
1991 MAR	BOL					
1991 APR	.880 <T					
1991 MAY	BOL					
1991 JUN	.840 <T					
1991 JUL	BOL					
1991 AUG	BOL	.390 <T	BOL	BOL	BOL	BOL
1991 SEP						
1991 OCT		3.300	2.700	ISM	1.100 <T	
1991 NOV		8.300	6.700	ISM	5.100	
1992 MAR		3.200	.850 <T	1.500 <T	5.700	
1992 AUG	.690 <T				2.100	
LEAD (UG/L)						
		DET'N LIMIT = 0.05	GUIDELINE = 10 (A1)			
1991 JAN	.350 <T					
1991 FEB	.190 <T					
1991 MAR	.090 <T					
1991 APR	.070 <T					
1991 MAY	.190 <T					
1991 JUN	.260 <T					
1991 JUL	.210 <T					
1991 AUG	.320 <T	.110 <T	.240 <T	.250 <T	.440 <T	.220 <T
1991 SEP						
1991 OCT		.230 <T	.210 <T	.060 <T		
1991 NOV		.180 <T	.160 <T	ISM	.500 <T	
1992 MAR				.260 <T	.530	
1992 AUG	.520	.130 <T	.200 <T	BOL	.480 <T	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PATISLEY WELL RAM	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOONEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
METALS							
NICKEL (UG/L)							
DET'N LIMIT = 0.20							
GUIDELINE = 350 (03)							
1991 JAN	.910 <T						
1991 FEB	1,200 <T						
1991 MAR	BOL						
1991 APR	2,000 <T						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG	BOL				BOL		
1991 SEP		BOL	BOL	2,900		6,400	2,100
1991 OCT		BOL	BOL	1,700 <T		4,600	3,100
1991 NOV							
1991 DEC	ISM						
1992 JAN							
1992 FEB	8,500						
1992 MAR		5,700	6,900	9,300	8,200	16,000	20,000
1992 APR							
1992 MAY	3,100						
1992 JUN		6,200	6,700	9,000		18,000	
1992 JUL							
1992 AUG							
1992 OCT							
LEAD (UG/L)							
DET'N LIMIT = 0.05							
GUIDELINE = 10 (A1)							
1991 JAN		.340 <T					
1991 FEB		.280 <T					
1991 MAR		.180 <T					
1991 APR		.480 <T					
1991 MAY		.180 <T					
1991 JUN		.220 <T					
1991 JUL		.230 <T					
1991 AUG		BOL			.130 <T		
1991 SEP	.110 <T		.090 <T	.070 <T		.090 <T	.700
1991 OCT		.110 <T	.070 <T	BOL	.140 <T	.090 <T	.350 <T
1991 NOV	ISM						
1991 DEC							
1992 JAN	.080 <T		.060 <T	BOL	.230 <T	BOL	.960
1992 FEB		.080 <T					
1992 MAR	.090 <T		.100 <T	.080 <T		.210 <T	
1992 APR		2,000					
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
1992 OCT							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
NICKEL (UG/L)	DET'N LIMIT = 0.20			GUIDELINE = 350 (03)			
1991 JAN	.750 <T	-	-	-	-	-	.620 <T
1991 FEB	BOL	-	-	-	-	-	BOL
1991 MAR	BOL	-	-	-	-	-	BOL
1991 APR	1.100 <T	-	-	-	-	-	1.200 <T
1991 MAY	BOL	-	-	-	-	-	BOL
1991 JUN	.810 <T	-	-	-	-	-	2.600
1991 JUL	BOL	-	-	-	-	-	BOL
1991 AUG	4.900	-	-	-	BOL	BOL	-
1991 SEP	-	8.300	BOL	-	ISM	4.300	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	3.100	17.000	3.600	-	2.500	11.000	-
LEAD (UG/L)							
DET'N LIMIT = 0.05				GUIDELINE = 10 (A1)			
1991 JAN	2.400	-	-	-	-	-	.250 <T
1991 FEB	2.200	-	-	-	-	-	.190 <T
1991 MAR	2.400	-	-	-	-	-	.210 <T
1991 APR	1.900	-	-	-	-	-	.240 <T
1991 MAY	3.500	-	-	-	-	-	.210 <T
1991 JUN	2.000	-	-	-	-	-	.260 <T
1991 JUL	4.400	-	-	-	-	-	.260 <T
1991 AUG	.370 <T	-	-	.190 <T	.930	-	-
1991 SEP	-	.910	.090 <T	-	-	.520	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	2.300	.590	.080 <T	-	.230 <T	.750	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY TREATMENT	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD		DIST. SYSTEM IMPERIAL RD N	
		FREE FLOW	STANDING	FREE FLOW	STANDING
METALS					
NICKEL (UG/L)		DET'N LIMIT = 0.20		GUIDELINE = 350 (03)	
1991 JAN	1.100 <T	.450 <T	.510 <T	1.700 <T	-
1991 FEB	2.500	BOL	BOL	2.800	3.100
1991 MAR	BOL	BOL	BOL	BOL	.860 <T
1991 APR	3.200	1.800 <T	1.500 <T	3.700	4.200
1991 MAY	BOL	BOL	BOL	BOL	BOL
1991 JUN	.760 <T	BOL	1.100 <T	BOL	BOL
1991 JUL	BOL	BOL	BOL	BOL	BOL
1991 AUG	-	BOL	BOL	BOL	.560 <T
1991 OCT	5.800	-	-	BOL	BOL
1992 APR	3.100	-	-	8.200	6.300
1992 MAY	-	-	-	6.300	6.200
1992 OCT	6.500	-	-	6.300	6.200
LEAD (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 10 (A1)	
1991 JAN	.210 <T	2.400	.390 <T	1.800	.920
1991 FEB	.250 <T	2.600	.580	1.200	13.000
1991 MAR	.170 <T	2.000	.410 <T	1.600	5.000
1991 APR	.210 <T	2.400	1.800	.860	8.900
1991 MAY	.200 <T	2.300	.350 <T	.860	7.400
1991 JUN	.200 <T	2.200	.770	.810	3.300
1991 JUL	.270 <T	2.500	.610	1.100	5.400
1991 AUG	-	-	.520	1.600	6.800
1991 OCT	-	-	-	.960	5.300
1992 APR	.160 <T	2.700	-	4.300	.790
1992 MAY	-	-	-	.800	2.800
1992 OCT	3.000	-	-	-	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERANOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS						
ANTHONY (UG/L)		DET'N LIMIT = 0.05	GUIDELINE = 146 (D4)			
1991 JAN	.390 <T					
1991 FEB	.590					
1991 MAR	.590					
1991 APR	.590					
1991 MAY	.350 <T					
1991 JUN	.460 <T					
1991 JUL	.880					
1991 AUG	.470 <T					.490 <T
1991 SEP		.580	.440 <T	.410 <T	.330 <T	
1991 OCT						
1991 NOV		.780	.600	ISM	.300 <T	
1992 MAR		1.000	.660	.470 <T	.620	
1992 AUG	.370 <T	.640	.450 <T	.400 <T	.450 <T	
SELENIUM (UG/L)						
		DET'N LIMIT = 1.00	GUIDELINE = 10 (A1)			
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	1.600 <T					
1991 MAY	BDL					
1991 JUN	1.400 <T					
1991 JUL	BDL					
1991 AUG	BDL					BDL
1991 SEP		1.200 <T	BDL	BDL	1.500 <T	
1991 OCT		BDL	BDL	ISM	2.100 <T	
1991 NOV		2.300 <T	1.600 <T	1.400 <T	2.000 <T	
1992 MAR	BDL	BDL	BDL	BDL	1.100 <T	
1992 AUG						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL	PAISLEY WELL	BUFF S. WELL	CALICO WELL	OWNEY WELL	HELMAR WELL	PARK WELL	QUEENSDALE
PRETREATED	RAW	PRETREATED	PRETREATED	PRETREATED	PRETREATED	PRETREATED	PRETREATED

METALS

ANTIMONY (UG/L)

DET'N LIMIT = 0.05

GUIDELINE = 146 (D4)

Year	1991 JAN	1991 FEB	1991 MAR	1991 APR	1991 MAY	1991 JUN	1991 JUL	1991 AUG	1991 SEP	1991 OCT	1991 NOV	1992 MAR	1992 APR	1992 AUG	1992 OCT
1991 JAN	.380 <†														
1991 FEB	.670 <†														
1991 MAR	.350 <†														
1991 APR	.540														
1991 MAY	.480 <†														
1991 JUN	.530														
1991 JUL	.670														
1991 AUG							.490 <†								
1991 SEP	.560							.450 <†	.900				.920		
1991 OCT							.400 <†	.520	.890				1.000		
1991 NOV	1.5M														
1992 MAR	.770														
1992 APR							.320 <†	.420 <†	.820				.840		
1992 AUG	.590													.700	
1992 OCT							.370 <†	.420 <†	.890					.890	

SELENIUM (UG/L)

DET'N LIMIT = 1.00

GUIDELINE = 10 (A1)

[illegible]

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
ANTIMONY (UG/L)							
DET'N LIMIT = 0.05							
GUIDELINE = 146 (D4)							
1991 JAN	.380 <T	-	-	-	-	-	.340 <T
1991 FEB	.550	-	-	-	-	-	.530
1991 MAR	.510	-	-	-	-	-	.410 <T
1991 APR	.610	-	-	-	-	-	.560
1991 MAY	.490 <T	-	-	-	-	-	.300 <T
1991 JUN	.580	-	-	-	-	-	.500 <T
1991 JUL	.710	-	-	-	-	-	.750
1991 AUG	1.100	-	-	-	.470 <T	-	-
1991 SEP	-	.820	.460 <T	.560	ISM	1.100	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	.490 <T	.420 <T	.410 <T	-	.390 <T	.820	-
SELENIUM (UG/L)							
DET'N LIMIT = 1.00							
GUIDELINE = 10 (A1)							
1991 JAN	BDL	-	-	-	-	-	BDL
1991 FEB	BDL	-	-	-	-	-	1.300 <T
1991 MAR	BDL	-	-	-	-	-	BDL
1991 APR	1.100 <T	-	-	-	-	-	1.200 <T
1991 MAY	BDL	-	-	-	-	-	BDL
1991 JUN	2.200 <T	-	-	-	-	-	BDL
1991 JUL	BDL	-	-	-	-	-	1.200 <T
1991 AUG	-	-	-	-	-	-	BDL
1991 SEP	-	1.500 <T	BDL	BDL	1.200 <T	-	-
1991 NOV	-	ISM	ISM	ISM	ISM	BDL	-
1992 MAY	BDL	2.000 <T	BDL	-	BDL	BDL	-

TABLE 4
DRAINING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PALSLEY WELL TREATED	U OF G WELL TREATED	UJST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
METALS					
ANTHONY (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 146 (04)	
1991 JAN	.450 <T	.410 <T	.630	.560	.560
1991 FEB	.990	.540	.550	.670	.760
1991 MAR	.530	.480 <T	.460 <T	.710	.680
1991 APR	.690	.560	.610	.730	.860
1991 MAY	.410 <T	.480 <T	.470 <T	.520	.510
1991 JUN	.500 <T	.510	.500 <T	.560	.660
1991 JUL	.600	.660	.930	.870	.800
1991 AUG	.	.	.540	.590	.650
1991 OCT	.	.	.	.620	.620
1992 APR	.460 <T	.510	.	.940	.450 <T
1992 MAY	.500 <T	.	.	.410 <T	.590
1992 OCT	.	.	.	.	.
SELENIUM (UG/L)		DET'N LIMIT = 1.00		GUIDELINE = 10 (A1)	
1991 JAN	BDL	BDL	BDL	BDL	1,300 <T
1991 FEB	2,200 <T	BDL	BDL	1,700 <T	1,100 <T
1991 MAR	BDL	BDL	BDL	1,300 <T	1,600 <T
1991 APR	1,900 <T	2,100 <T	1,400 <T	1,900 <T	1,400 <T
1991 MAY	BDL	BDL	BDL	1,100 <T	1,800 <T
1991 JUN	2,300 <T	2,400 <T	1,900 <T	2,200 <T	1,300 <T
1991 JUL	2,000 <T	1,200 <T	1,200 <T	1,500 <T	1,300 <T
1991 AUG	.	.	BDL	1,300 <T	BDL
1991 OCT	BDL	.	.	1,300 <T	BDL
1992 APR	.	BDL	.	.	BDL
1992 MAY	.	.	.	3,200 <T	3,300 <T
1992 OCT	2,000 <T	.	.	.	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYDNE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS		GUIDELINE = N/A					
STRONTIUM (UG/L)		DET'N LIMIT = 0.10					
1991 JAN	320.000						
1991 FEB	320.000						
1991 MAR	290.000						
1991 APR	310.000						
1991 MAY	210.000						
1991 JUN	150.000						
1991 JUL	360.000						
1991 AUG		140.000					290.000
1991 SEP			1100.000		210.000	7500.000	
1991 OCT							
1991 NOV		420.000	930.000	510.000	ISM	10000.000	
1992 MAR		510.000	1100.000	610.000	300.000	9600.000	
1992 AUG		420.000	870.000	570.000	220.000	5740.000	
TITANIUM (UG/L)		GUIDELINE = N/A					
		DET'N LIMIT = 0.50					
1991 JAN	12.000						
1991 FEB	10.000						
1991 MAR	12.000						
1991 APR	17.000						
1991 MAY	18.000						
1991 JUN	37.000						
1991 JUL	20.000						
1991 AUG		8.100					9.300
1991 SEP			3.900 <T		2.800 <T	3.300 <T	
1991 OCT							
1991 NOV			9.000	5.600	ISM	7.600	
1992 MAR		6.900	9.900	ISM	11.000	11.000	
1992 AUG		8.700	15.000	12.000	13.000	15.000	
		14.000					
	12.000						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

METALS									
STRONTIUM (UG/L)									
DET'N LIMIT = 0.10 GUIDELINE = N/A									
1991 JAN	380.000								
1991 FEB	380.000								
1991 MAR	340.000								
1991 APR	420.000								
1991 MAY	410.000								
1991 JUN	400.000								
1991 JUL	380.000								
1991 AUG		110.000			4100.000				
1991 SEP	670.000		2800.000	4400.000		3500.000	490.000		
1991 OCT		120.000	2800.000	4500.000		2800.000	450.000		
1991 NOV	ISM								
1992 MAR	680.000								
1992 APR		110.000	2400.000	4300.000		3000.000	620.000		
1992 AUG	620.000								
1992 OCT		130.000	2600.000	5100.000 RVV		3300.000			
TITANIUM (UG/L)									
DET'N LIMIT = 0.50 GUIDELINE = N/A									
1991 JAN									
1991 FEB		14.000							
1991 MAR		12.000							
1991 APR		13.000							
1991 MAY		25.000							
1991 JUN		25.000							
1991 JUL		55.000							
1991 AUG		26.000							
1991 SEP		8.400			10.000				
1991 OCT	4.400 <T		3.600 <T	3.600 <T		4.800 <T	4.300 <T		
1991 NOV		6.200	7.100	7.500	8.200	7.500	7.400		
1992 MAR	ISM								
1992 APR	12.000		13.000	13.000	38.000	15.000	40.000		
1992 AUG	14.000								
1992 OCT		13.000	13.000	15.000		15.000			

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
STRONTIUM (UG/L)		DET'N LIMIT = 0.10		GUIDELINE = N/A			
1991 JAN	3200.000	-	-	-	-	-	260.000
1991 FEB	3000.000	-	-	-	-	-	300.000
1991 MAR	2700.000	-	-	-	-	-	310.000
1991 APR	3300.000	-	-	-	-	-	280.000
1991 MAY	2700.000	-	-	-	-	-	180.000
1991 JUN	3000.000	-	-	-	-	-	150.000
1991 JUL	2200.000	-	-	-	-	-	250.000
1991 AUG	-	-	-	-	-	-	-
1991 SEP	2900.000	1100.000	3900.000	570.000	360.000	7000.000	-
1991 NOV	-	ISM	ISM	ISM	ISM	ISM	-
1992 MAY	2900.000	2100.000	4100.000	-	410.000	7251.000	-
TITANIUM (UG/L)		DET'N LIMIT = 0.50		GUIDELINE = N/A			
1991 JAN	15.000	-	-	-	-	-	12.000
1991 FEB	12.000	-	-	-	-	-	10.000
1991 MAR	15.000	-	-	-	-	-	11.000
1991 APR	24.000	-	-	-	-	-	17.000
1991 MAY	24.000	-	-	-	-	-	18.000
1991 JUN	52.000	-	-	-	-	-	37.000
1991 JUL	26.000	-	-	-	-	-	19.000
1991 AUG	-	-	-	-	-	-	-
1991 SEP	8.800	-	-	11.000	9.900	-	-
1991 NOV	-	4.500 <T	5.000 <T	ISM	ISM	4.500 <T	-
1992 MAY	23.000	25.000	28.000	ISM	21.000	27.000	-

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
METALS					
STRONTIUM (UG/L)		DET'N LIMIT = 0.10		GUIDELINE = N/A	
1991 JAN	1400.000	3000.000	3300.000	1700.000	-
1991 FEB	1200.000	2800.000	2900.000	1100.000	1200.000
1991 MAR	1400.000	3000.000	2400.000	1600.000	1500.000
1991 APR	1400.000	2800.000	610.000	1500.000	1500.000
1991 MAY	790.000	3000.000	980.000	750.000	760.000
1991 JUN	340.000	2900.000	1200.000	350.000	340.000
1991 JUL	400.000	2700.000	270.000	500.000	300.000
1991 AUG	-	-	200.000	330.000	340.000
1991 OCT	430.000	-	-	430.000	440.000
1992 APR	-	2800.000	-	960.000	640.000
1992 MAY	-	-	-	490.000	500.000
1992 OCT	2600.000	-	-	-	-
TITANIUM (UG/L)		DET'N LIMIT = 0.50		GUIDELINE = N/A	
1991 JAN	13.000	15.000	14.000	13.000	14.000
1991 FEB	13.000	13.000	10.000	11.000	12.000
1991 MAR	13.000	15.000	13.000	15.000	14.000
1991 APR	20.000	24.000	20.000	18.000	21.000
1991 MAY	25.000	25.000	19.000	19.000	25.000
1991 JUN	47.000	52.000	42.000	39.000	46.000
1991 JUL	24.000	28.000	20.000	19.000	20.000
1991 AUG	-	-	7.700	7.700	8.600
1991 OCT	-	-	-	-	6.600
1992 APR	12.000	-	-	14.000	12.000
1992 MAY	-	24.000	-	-	-
1992 OCT	17.000	-	-	14.000	13.000

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW		ERAMOSA RIVER RAW		ARKEI SPRING #6 PRETREATED		ARKEI SPRING #7 PRETREATED		ARKEI SPRING #8 PRETREATED		CARTER WELL PRETREATED		CLYTHE WELL PRETREATED		MEMBRO WELL PRETREATED	
THALLIUM (UG/L)		METALS		DET'N LIMIT = 0.05		GUIDELINE = 13 (D4)									
1991 JAN	BDL														
1991 FEB	BDL														
1991 MAR	BDL														
1991 APR	BDL														
1991 MAY	BDL														
1991 JUN	BDL														
1991 JUL	.070 <T														
1991 AUG	BDL														
1991 SEP															
1991 OCT															
1991 NOV															
1992 MAR															
1992 AUG															
URANIUM (UG/L)				DET'N LIMIT = 0.05		GUIDELINE = 100 (A1)									
1991 JAN	.650														
1991 FEB	.680														
1991 MAR	.650														
1991 APR	.630														
1991 MAY	.430 <T														
1991 JUN	.490 <T														
1991 JUL	.590														
1991 AUG															
1991 SEP															
1991 OCT															
1991 NOV															
1992 MAR															
1992 AUG															

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED		PALSLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	MELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
METALS								
THALLIUM (UG/L)								
			DET'N LIMIT = 0.05			GUIDELINE = 13 (04)		
1991 JAN	.	BDL	.	.	.	.	.	.
1991 FEB	.	.070 <T	.	.	.	.	.	.
1991 MAR	.	BDL	.	.	.	.	.	.
1991 APR	.	BDL	.	.	.	.	.	.
1991 MAY	.	BDL	.	.	.	.	.	.
1991 JUN	.	BDL	.	.	.	.	.	.
1991 JUL	.	BDL	.	.	.	.	.	.
1991 AUG	.	.	.060 <T	.	.	.	.	.
1991 SEP	.070 <T	.	.	BDL	BDL	BDL	.060 <T	BDL
1991 OCT	.	.	BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	ISM	.	.	.	.	.	.	.
1992 MAR	.070 <T	.	.	.	.	.	.	.
1992 APR	.	BDL	BDL	BDL	BDL	.090 <T	BDL	.080 <T
1992 AUG	BDL	.	.	.	.	.	.	.
1992 OCT	.	BDL	.070 <T	BDL	BDL	.	.080 <T	.
URANIUM (UG/L)								
			DET'N LIMIT = 0.05			GUIDELINE = 100 (AT)		
1991 JAN	.	.920	.	.	.	.	.	.
1991 FEB	.	.990	.	.	.	.	.	.
1991 MAR	.	.740	.	.	.	.	.	.
1991 APR	.	.820	.	.	.	.	.	.
1991 MAY	.	.880	.	.	.	.	.	.
1991 JUN	.	.950	.	.	.	.	.	.
1991 JUL	.	.820	.	.	.	.	.	.
1991 AUG	.	.	1.200	.	.	.	.	.
1991 SEP	.700	.	.	1.900	.790	.070 <T	1.400	.770
1991 OCT	ISM	.	1.000	1.800	.770	.170 <T	1.500	.870
1991 NOV	.	.	.	.	.	.	.	.
1992 MAR	.860	.	.	.	.	.	.	.
1992 APR	.	.830	1.000	1.500	.600	.180 <T	1.000	1.000
1992 AUG	.860	.	.	.	.	.	.	.
1992 OCT	.	1.000	1.500	1.700	.710	.	1.400	.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DE/PT PRL	RGH WELL %TREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
THALLIUM (UG/L)							
		DET'N LIMIT = 0.05		GUIDELINE = 13 (04)			
1991 JAN	BDL						BDL
1991 FEB	BDL						BDL
1991 MAR	BDL						BDL
1991 APR	BDL						BDL
1991 MAY	BDL						BDL
1991 JUN	BDL						BDL
1991 JUL	BDL						BDL
1991 AUG	BDL						BDL
1991 SEP	BDL						BDL
1991 OCT	BDL						BDL
1991 NOV	BDL						BDL
1991 DEC	BDL						BDL
1992 JAN	BDL						BDL
1992 FEB	BDL						BDL
1992 MAR	BDL						BDL
1992 APR	BDL						BDL
1992 MAY	BDL						BDL
1992 JUN	BDL						BDL
1992 JUL	BDL						BDL
1992 AUG	BDL						BDL
1992 SEP	BDL						BDL
1992 OCT	BDL						BDL
1992 NOV	BDL						BDL
1992 DEC	BDL						BDL
URANIUM (UG/L)							
		DET'N LIMIT = 0.05		GUIDELINE = 100 (AT)			
1991 JAN	.860						.590
1991 FEB	1.100						.640
1991 MAR	.860						.530
1991 APR	.830						.540
1991 MAY	1.000						.430 <T
1991 JUN	.800						.420 <T
1991 JUL	1.300						.540
1991 AUG	1.700						
1991 SEP	1.700						
1991 OCT	1.700						
1991 NOV	2.800						
1991 DEC	2.800						
1992 JAN	1.000						
1992 FEB	1.000						
1992 MAR	1.000						
1992 APR	1.000						
1992 MAY	1.000						
1992 JUN	1.000						
1992 JUL	1.000						
1992 AUG	1.000						
1992 SEP	1.000						
1992 OCT	1.000						
1992 NOV	1.000						
1992 DEC	1.000						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
METALS					
THALLIUM (UG/L)					
1991 JAN	BOL	BOL	BOL	BOL	BOL
1991 FEB	BOL	BOL	BOL	BOL	BOL
1991 MAR	BOL	BOL	BOL	BOL	BOL
1991 APR	BOL	BOL	BOL	BOL	BOL
1991 MAY	BOL	BOL	BOL	BOL	BOL
1991 JUN	BOL	BOL	BOL	BOL	BOL
1991 JUL	BOL	BOL	BOL	BOL	BOL
1991 AUG	BOL	BOL	BOL	BOL	BOL
1991 OCT	-	-	-	BOL	BOL
1992 APR	BOL	-	-	BOL	BOL
1992 MAY	-	-	-	-	-
1992 OCT	BOL	-	-	BOL	BOL
URANIUM (UG/L)					
1991 JAN	.820	.950	.700	.960	.870
1991 FEB	.860	1.200	.750	.830	.770
1991 MAR	.740	.870	.650	.800	.710
1991 APR	.720	.940	.590	.490 <T	.620
1991 MAY	.670	.920	.460 <T	.580	.580
1991 JUN	.580	.840	.480 <T	.560	.540
1991 JUL	.850	1.100	.520	.820	.750
1991 AUG	-	.490 <T	.490 <T	.300 <T	.400 <T
1991 OCT	-	-	-	.610	.610
1992 APR	.570	-	-	.820	.540
1992 MAY	1.100	-	-	.810	.850
1992 OCT	1.100	-	-	-	-

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
METALS							
VANADIUM (UG/L)							
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	.390 <T						BDL
1991 SEP		BDL	BDL		.090 <T	BDL	
1991 OCT				BDL			
1991 NOV		BDL	BDL	ISM	ISM	BDL	
1992 MAR		.110 <T	.060 <T	.160 <T	.130 <T	.250 <T	
1992 AUG	.220 <T	BDL	BDL	BDL	BDL	.180 <T	
ZINC (UG/L)							
GUIDELINE = 0.05							
DET'N LIMIT = 0.20							
1991 JAN	120.000						
1991 FEB	130.000						
1991 MAR	92.000						
1991 APR	110.000						
1991 MAY	130.000						
1991 JUN	110.000						
1991 JUL	120.000						
1991 AUG	19.000						46.000
1991 SEP		130.000	180.000		70.000	35.000	
1991 OCT				120.000			
1991 NOV		160.000	210.000	ISM	ISM	46.000	
1992 MAR		160.000	210.000	130.000	94.000	58.000	
1992 AUG	32.000	160.000	210.000	1.400 <T	110.000	120.000	
GUIDELINE = 5000 (A3)							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
METALS							
VANADIUM (UG/L)							
DET'N LIMIT = 0.05							
GUIDELINE = N/A							
1991 JAN	BOL						BOL
1991 FEB	.080 <T						BOL
1991 MAR	BOL						BOL
1991 APR	BOL						BOL
1991 MAY	BOL						BOL
1991 JUN	BOL						BOL
1991 JUL	BOL						BOL
1991 AUG							
1991 SEP	BOL						
1991 OCT	ISM						
1991 NOV	BOL						
1992 MAY	.100 <T						
ZINC (UG/L)							
DET'N LIMIT = 0.20							
GUIDELINE = 5000 (AS)							
1991 JAN	80,000						120,000
1991 FEB	75,000						130,000
1991 MAR	72,000						120,000
1991 APR	84,000						140,000
1991 MAY	95,000						130,000
1991 JUN	74,000						120,000
1991 JUL	100,000						110,000
1991 AUG	66,000						
1991 SEP							
1991 OCT	220,000						
1991 NOV	ISM						
1992 MAY	69,000						
DET'N LIMIT = 0.20							
GUIDELINE = 5000 (AS)							
1991 JAN	80,000						120,000
1991 FEB	75,000						130,000
1991 MAR	72,000						120,000
1991 APR	84,000						140,000
1991 MAY	95,000						130,000
1991 JUN	74,000						120,000
1991 JUL	100,000						110,000
1991 AUG	66,000						
1991 SEP							
1991 OCT	220,000						
1991 NOV	ISM						
1992 MAY	69,000						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

METALS									
VANADIUM (UG/L)									
PAISLEY WELL TREATED		U OF G WELL TREATED		DIST. SYSTEM VICTORIA RD FREE FLOW		DIST. SYSTEM VICTORIA RD STANDING		DIST. SYSTEM IMPERIAL RD N STANDING	
DET'N LIMIT = 0.05									
GUIDELINE = N/A									
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 FEB	.120 <T	BDL	.060 <T	BDL	BDL	.110 <T	BDL	BDL	BDL
1991 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 APR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUN	.070 <T	BDL	BDL	BDL	BDL	.070 <T	BDL	.090 <T	BDL
1991 JUL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 AUG	.	BDL	.070 <T	BDL	.080 <T	BDL	BDL	BDL	BDL
1991 OCT	.	.	.	.	.	BDL	BDL	BDL	BDL
1992 APR	.120 <T	BDL	.	.	.	.310 <T	BDL	.240 <T	BDL
1992 MAY	.	.	.	.	.	.	.	.	.
1992 OCT	.320 <T	BDL	.	.	.	.230 <T	BDL	.240 <T	BDL
ZINC (UG/L)									
GUIDELINE = 5000 (A3)									
1991 JAN	83,000	80,000	110,000	87,000	84,000	84,000	120,000	120,000	120,000
1991 FEB	83,000	83,000	110,000	100,000	86,000	86,000	110,000	110,000	110,000
1991 MAR	73,000	74,000	91,000	140,000	89,000	89,000	160,000	160,000	160,000
1991 APR	83,000	88,000	120,000	150,000	94,000	94,000	110,000	110,000	110,000
1991 MAY	84,000	82,000	130,000	140,000	80,000	80,000	89,000	89,000	89,000
1991 JUN	98,000	75,000	100,000	120,000	92,000	92,000	140,000	140,000	140,000
1991 JUL	98,000	77,000	110,000	120,000	110,000	110,000	120,000	120,000	120,000
1991 AUG	.	.	110,000	120,000	31,000	31,000	140,000	140,000	140,000
1991 OCT	130,000	.	.	.	100,000	100,000	62,000	62,000	62,000
1992 APR	.	91,000	.	.	87,000	87,000	100,000	100,000	100,000
1992 MAY	.	.	.	.	.	.	.	.	.
1992 OCT	88,000	.	.	.	.	.	.	.	.

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAV	ERAMOSA RIVER RAV	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
CHLOROCYCLOPENTADIENES						
HEXACHLOROCYCLOPENTADIENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 450 (04)				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
123-TRICHLOROBENZENE (NG/L)	DET'N LIMIT = 5.000	GUIDELINE = N/A				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
1234-TETRACHLOROBENZENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = N/A				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
1235-TETRACHLOROBENZENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = N/A				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
124-TRICHLOROBENZENE (NG/L)	DET'N LIMIT = 5.000	GUIDELINE = 10000 (1)				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
1245-TETRACHLOROBENZENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 38000 (04)				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
135-TRICHLOROBENZENE (NG/L)	DET'N LIMIT = 5.000	GUIDELINE = N/A				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
HEXACHLOROBENZENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 10 (C1)				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
HEXACHLOROETHANE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 1900 (04)				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
OCTACHLOROSTYRENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 100 (01)				
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
PENTACHLOROBENZENE (NG/L)	DET'N LIMIT = 1.000	GUIDELINE = 74000 (04)				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
236-TRICHLOROTOLUENE (NG/L)	DET'N LIMIT = 5.000	GUIDELINE = N/A				
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAITSLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOONEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHLOROBENZENES							
HEXACHLOROBUTADIENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 450 (04)							
123-TRICHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = N/A							
1234-TETCHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = N/A							
1235-TETCHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = N/A							
124-TRICHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 10000 (1)							
1245-TETCHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 38000 (04)							
135-TRICHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = N/A							
HEXACHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 10 (C1)							
HEXACHLOROETHANE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 1900 (04)							
OCTACHLOROSTYRENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 100 (01)							
PENTACHLOROBENZENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 74000 (04)							
236-TRICHLOROTOLUENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = N/A							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	ENNA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHLOROPARACETAMOLS							
HEXACHLOROBUTADIENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 450 (04)	BDL	BDL
123-TRICHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = N/A	BDL	BDL
1234-TETCHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = N/A	BDL	BDL
1235-TETCHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = N/A	BDL	BDL
124-TRICHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = 10000 (1)	BDL	BDL
1245-TETCHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 38000 (04)	BDL	BDL
135-TRICHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = N/A	BDL	BDL
HEXACHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 10 (C1)	BDL	BDL
HEXACHLORODITHANE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 1900 (04)	BDL	BDL
OCTACHLOROSTYRENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 100 (D1)	BDL	BDL
PENTACHLOROBENZENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 74000 (04)	BDL	BDL
236-TRICHLOROTOLUENE (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = N/A	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHLOROMATICS					
HEXACHLOROBUTADIENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 450 (04)		
BOL	BOL	BOL		BOL	
123-TRICHLOROBENZENE (NG/L)		DET'N LIMIT = 5,000	GUIDELINE = N/A		
BOL	BOL	BOL		BOL	
123A-TETCHLOROBENZENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = N/A		
BOL	BOL	BOL		BOL	
123S-TETCHLOROBENZENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = N/A		
BOL	BOL	BOL		BOL	
124-TRICHLOROBENZENE (NG/L)		DET'N LIMIT = 5,000	GUIDELINE = 10000 (1)		
BOL	BOL	BOL		BOL	
124S-TETCHLOROBENZENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 38000 (04)		
BOL	BOL	BOL		BOL	
135-TRICHLOROBENZENE (NG/L)		DET'N LIMIT = 5,000	GUIDELINE = N/A		
BOL	BOL	BOL		BOL	
HEXACHLOROBENZENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 10 (C1)		
BOL	BOL	BOL		BOL	
HEXACHLORETHANE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 1900 (04)		
BOL	BOL	BOL		BOL	
OCTACHLOROSTYRENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 100 (C1)		
BOL	BOL	BOL		BOL	
PENTACHLOROBENZENE (NG/L)		DET'N LIMIT = 1,000	GUIDELINE = 74000 (04)		
BOL	BOL	BOL		BOL	
236-TRICHLOROTOLUENE (NG/L)		DET'N LIMIT = 5,000	GUIDELINE = N/A		
BOL	BOL	BOL		BOL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
CHLOROMATICS						
245-TRICHLOROTOLUENE (NG/L)		DET'M LIMIT = 5,000	GUIDELINE = N/A			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
26A-TRICHLOROTOLUENE (NG/L)		DET'M LIMIT = 5,000	GUIDELINE = N/A			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHLORODROMATICS							
2,4,5-TRICHLOROTOLUENE (NG/L)		DET'N LIMIT = 5,000		GUIDELINE = N/A			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,6-DICHLOROTOLUENE (NG/L)		DET'N LIMIT = 5,000		GUIDELINE = N/A			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHLORODROMATICS							
245-TRICHLOROTOLUENE (NG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 5.000 GUIDELINE = N/A							
26A-TRICHLOROTOLUENE (NG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 5.000 GUIDELINE = N/A							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHLOROBROMATICS					
245-TRICHLOROTOLUENE (NG/L)		DET'N LIMIT = 5,000			
BDL	BDL	BDL		BDL	
26A-TRICHLOROTOLUENE (NG/L)		DET'N LIMIT = 5,000			
BDL	BDL	BDL		BDL	

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARMTL SPRING #8 PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
CHLOROPHENOLS						
234-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 100.0	GUIDELINE = N/A			
5 SAMPLES	ILA					
2345-TETRACHLOROPHENOL (NG/L)		DET'M LIMIT = 20.0	GUIDELINE = N/A			
5 SAMPLES	ILA					
2356-TETRACHLOROPHENOL (NG/L)		DET'M LIMIT = 10.0	GUIDELINE = N/A			
5 SAMPLES	ILA					
245-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 100.0	GUIDELINE = 2600000 (04)			
5 SAMPLES	ILA					
246-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 20.0	GUIDELINE = 5000 (A1)			
5 SAMPLES	ILA					
PENTACHLOROPHENOL (NG/L)		DET'M LIMIT = 10.00	GUIDELINE = 60000 (A1)			
5 SAMPLES	ILA					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
CHLOROPHENOLS							
234-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 100.0		GUIDELINE = N/A			
	BOL						
2345-TECHLOROPHENOL (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	BOL						
2356-TECHLOROPHENOL (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BOL						
245-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 100.0		GUIDELINE = 2600000 (D4)			
	BOL						
246-TRICHLOROPHENOL (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 5000 (A1)			
	BOL						
PENTACHLOROPHENOL (NG/L)		DET'M LIMIT = 10.00		GUIDELINE = 60000 (A1)			
	BOL						

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
CHLOROPHENOLS							
234-TRICHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 100.0	GUIDELINE = N/A				BDL
2345-TETACHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = N/A				BDL
2356-TETACHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 10.0	GUIDELINE = N/A				BDL
245-TRICHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 100.0	GUIDELINE = 2600000 (D4)				BDL
246-TRICHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = 5000 (A1)				BDL
PENTACHLOROPHENOL (NG/L)	BDL	DET'N LIMIT = 10.00	GUIDELINE = 60000 (A1)				BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHLOROPHENOLS					
234-TRICHLOROPHENOL (NG/L)		DET'N LIMIT = 100.0		GUIDELINE = N/A	
BOL	BOL				
2345-TETCHLOROPHENOL (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A	
BOL	BOL				
2356-TETCHLOROPHENOL (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A	
BOL	BOL				
245-TRICHLOROPHENOL (NG/L)		DET'N LIMIT = 100.0		GUIDELINE = 2600000 (D4)	
BOL	BOL				
246-TRICHLOROPHENOL (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = 5000 (A1)	
BOL	BOL				
PENTACHLOROPHENOL (NG/L)		DET'N LIMIT = 10.00		GUIDELINE = 60000 (A1)	
BOL	BOL				

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHIE WELL PRETREATED	MEMROD WELL PRETREATED
PESTICIDES AND PCB						
ALDRIN (NG/L)		DET'M LIMIT = 1.000	GUIDELINE = 700 (A1)			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ALPHA BHC (NG/L)		DET'M LIMIT = 1.000	GUIDELINE = 700 (G)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
BETA BHC (NG/L)		DET'M LIMIT = 1.00	GUIDELINE = 300 (G)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
LINDANE (GAMMA BHC) (NG/L)		DET'M LIMIT = 1.000	GUIDELINE = 4000 (A1)			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ALPHA CHLORDANE (NG/L)		DET'M LIMIT = 2.000	GUIDELINE = 7000 (A1)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GAMMA CHLORDANE (NG/L)		DET'M LIMIT = 2.00	GUIDELINE = 7000 (A1)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
DIELDRIN (NG/L)		DET'M LIMIT = 2.00	GUIDELINE = 700 (A1)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
METHOXYCHLOR (NG/L)		DET'M LIMIT = 5.0	GUIDELINE = 900000 (A1)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ENDOSULFAN 1 (NG/L)		DET'M LIMIT = 2.00	GUIDELINE = 74000 (D4)			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ENDOSULFAN 11 (NG/L)		DET'M LIMIT = 5.000	GUIDELINE = 74000 (D4)			
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ENDRIN (NG/L)		DET'M LIMIT = 5.000	GUIDELINE = 1600 (D3)			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
ENDOSULFAN SULPHATE (NG/L)		DET'M LIMIT = 5.00	GUIDELINE = N/A			
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
PESTICIDES AND PCB							
ALDRIN (NG/L)	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 700 (A1)	BDL	BDL	BDL
ALPHA BHC (NG/L)	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 700 (G)	BDL	BDL	BDL
BETA BHC (NG/L)	BDL	DET'M LIMIT = 1.00	BDL	GUIDELINE = 300 (G)	BDL	BDL	BDL
LINDANE (GAMMA BHC) (NG/L)	BDL	DET'M LIMIT = 1.000	BDL	GUIDELINE = 4000 (A1)	BDL	BDL	BDL
ALPHA CHLORDANE (NG/L)	BDL	DET'M LIMIT = 2.000	BDL	GUIDELINE = 7000 (A1)	BDL	BDL	BDL
GAMMA CHLORDANE (NG/L)	BDL	DET'M LIMIT = 2.00	BDL	GUIDELINE = 7000 (A1)	BDL	BDL	BDL
DIELDRIN (NG/L)	BDL	DET'M LIMIT = 2.00	BDL	GUIDELINE = 700 (A1)	BDL	BDL	BDL
METHOXYCHLOR (NG/L)	BDL	DET'M LIMIT = 5.0	BDL	GUIDELINE = 900000 (A1)	BDL	BDL	BDL
ENDOSULFAN I (NG/L)	BDL	DET'M LIMIT = 2.00	BDL	GUIDELINE = 74000 (D4)	BDL	BDL	BDL
ENDOSULFAN II (NG/L)	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = 74000 (D4)	BDL	BDL	BDL
ENDRIN (NG/L)	BDL	DET'M LIMIT = 5.000	BDL	GUIDELINE = 1600 (D3)	BDL	BDL	BDL
ENDOSULFAN SULPHATE (NG/L)	BDL	DET'M LIMIT = 5.00	BDL	GUIDELINE = N/A	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PESTICIDES AND PCB									
U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED		
ALDRIN (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	GUIDELINE = 700 (A1)	BDL	BDL	BDL	BDL	BDL
ALPHA BHC (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	GUIDELINE = 700 (G)	BDL	BDL	BDL	BDL	BDL
BETA BHC (NG/L)	BDL	BDL	DET'M LIMIT = 1.00	GUIDELINE = 300 (G)	BDL	BDL	BDL	BDL	BDL
LINDANE (GAMMA BHC) (NG/L)	BDL	BDL	DET'M LIMIT = 1.000	GUIDELINE = 4000 (A1)	BDL	BDL	BDL	BDL	BDL
ALPHA CHLORDANE (NG/L)	BDL	BDL	DET'M LIMIT = 2.000	GUIDELINE = 7000 (A1)	BDL	BDL	BDL	BDL	BDL
GAMMA CHLORDANE (NG/L)	BDL	BDL	DET'M LIMIT = 2.00	GUIDELINE = 7000 (A1)	BDL	BDL	BDL	BDL	BDL
DIELDREN (NG/L)	BDL	BDL	DET'M LIMIT = 2.00	GUIDELINE = 700 (A1)	BDL	BDL	BDL	BDL	BDL
METHOXYCHLOR (NG/L)	BDL	BDL	DET'M LIMIT = 5.0	GUIDELINE = 900000 (A1)	BDL	BDL	BDL	BDL	BDL
ENDOSULFAM I (NG/L)	BDL	BDL	DET'M LIMIT = 2.00	GUIDELINE = 74000 (D4)	BDL	BDL	BDL	BDL	BDL
ENDOSULFAM II (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	GUIDELINE = 74000 (D4)	BDL	BDL	BDL	BDL	BDL
ENDRIN (NG/L)	BDL	BDL	DET'M LIMIT = 5.000	GUIDELINE = 1600 (D3)	BDL	BDL	BDL	BDL	BDL
ENDOSULFAM SULPHATE (NG/L)	BDL	BDL	DET'M LIMIT = 5.00	GUIDELINE = N/A	BDL	BDL	BDL	BDL	BDL

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SURVEY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKELE SPRING #6 PRETREATED	ARKELE SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
PESTICIDES AND PCB						
NEPTACHLOR EPOXIDE (NG/L)						
67 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 3000 (A1)						
NEPTACHLOR (NG/L)						
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 3000 (A1)						
MIREX (NG/L)						
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = N/A						
OXYCHLORDANE (NG/L)						
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = N/A						
O,P-DDT (NG/L)						
92 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 30000 (A1)						
PCB (NG/L)						
91 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 3000 (A2)						
P,P-DDD (NG/L)						
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 30000 (A1)						
P,P-DDE (NG/L)						
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 30000 (A1)						
P,P-DDT (NG/L)						
87 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 30000 (A1)						
TOXAPHENE (NG/L)						
63 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 5000 (A1)						
AMETRINE (NG/L)						
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
GUIDELINE = 300000 (D3)						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
PESTICIDES AND PCB							
HEPTACHLOR EPOXIDE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEPTACHLOR (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MIREX (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
OXYCHLORDANE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
O,P-DDT (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCB (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDD (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDT (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOXAPHENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AMETRINE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
PESTICIDES AND PCB							
HEPTACHLOR EPOXIDE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEPTACHLOR (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MIREX (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
OXYCHLORDANE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
O,P-DDT (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCB (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDD (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P,P-DDT (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOXAPHENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AMETRINE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PESTICIDES AND PCB						
HEPTACHLOR EPOXIDE (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 1,000	GUIDELINE = 3000 (A1)	

HEPTACHLOR (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 1,000	GUIDELINE = 3000 (A1)	

MIREX (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 5,000	GUIDELINE = N/A	

OXYCHLORDANE (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 2,000	GUIDELINE = N/A	

O,P-DDT (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 5,000	GUIDELINE = 30000 (A1)	

PCB (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 20.00	GUIDELINE = 3000 (A2)	

P,P-DDD (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 5,000	GUIDELINE = 30000 (A1)	

P,P-DDE (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 1,000	GUIDELINE = 30000 (A1)	

P,P-DDT (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 5,000	GUIDELINE = 30000 (A1)	

TOXAPHENE (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 500.0	GUIDELINE = 5000 (A1)	

AMETRINE (NG/L)						
	BDL	BDL	BDL	DET'N LIMIT = 50.0	GUIDELINE = 300000 (D3)	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEl SPRING #6 PRETREATED	ARKEl SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHNE WELL PRETREATED	MEMBRO WELL PRETREATED
PESTICIDES AND PCB						
ATRAZINE (NG/L)		DL 1% LIMIT = 50.0				
		GUIDELINE = 60000 (A2)				
1991 JAN	BDL	-	-	-	-	-
1991 FEB	BDL	-	-	-	-	-
1991 MAR	BDL	-	-	-	-	-
1991 APR	BDL	-	-	-	-	-
1991 MAY	BDL	-	-	-	-	-
1991 JUN	BDL	-	-	-	-	-
1991 JUL	BDL	-	-	-	-	-
1991 AUG	IAW	-	-	-	-	IAW
1991 SEP	-	IAW	IAW	IAW	IAW	-
1991 OCT	-	-	-	-	-	-
1991 NOV	-	BDL	BDL	BDL	BDL	-
1992 MAR	-	BDL	BDL	BDL	BDL	-
1992 AUG	-	BDL	BDL	BDL	50,000 <1	-
ATRAZONE (NG/L)		DET'M LIMIT = 50.0				
		GUIDELINE = N/A				
76 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
CYANAZINE (BLADEX) (NG/L)		DET'M LIMIT = 100.0				
		GUIDELINE = 10000 (A2)				
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	IAW
DESETHYL ATRAZINE (NG/L)		DET'M LIMIT = 200.0				
		GUIDELINE = 60000 (A2)				
1991 JAN	BDL	-	-	-	-	-
1991 FEB	BDL	-	-	-	-	-
1991 MAR	BDL	-	-	-	-	-
1991 APR	BDL	-	-	-	-	-
1991 MAY	BDL	-	-	-	-	-
1991 JUN	BDL	-	-	-	-	-
1991 JUL	BDL	-	-	-	-	-
1991 AUG	IAW	-	-	-	-	IAW
1991 SEP	-	IAW	IAW	IAW	IAW	-
1991 OCT	-	-	-	-	-	-
1991 NOV	-	BDL	BDL	BDL	BDL	-
1992 MAR	-	BDL	BDL	BDL	BDL	-
1992 AUG	-	BDL	BDL	BDL	BDL	-

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL
RAW

DEAN WELL
PRETREATED

EDINBURGH WELL
PRETREATED

EMMA ST WELL
PRETREATED

SACCO WELL
PRETREATED

SMALLFIELD WELL
PRETREATED

WATER ST WELL
PRETREATED

WOODS PUMP
TREATED

PESTICIDES AND PCB

ATRAZINE (NG/L)		DET'N LIMIT = 50.0		GUIDELINE = 60000 (A2)			
1991 JAN	BDL	.	.	.	.	BDL	BDL
1991 FEB	BDL	.	.	.	.	BDL	BDL
1991 MAR	ITS	.	.	.	.	BDL	BDL
1991 APR	BDL	.	.	.	.	BDL	BDL
1991 MAY	BDL	.	.	.	.	BDL	BDL
1991 JUN	BDL	.	.	.	.	BDL	BDL
1991 JUL	BDL	.	.	.	.	BDL	BDL
1991 AUG	1AW	.	.	.	.	BDL	BDL
1991 SEP	.	1AW	1AW	1AW	1AW	1AW	.
1991 NOV	.	BDL	BDL	BDL	BDL	BDL	.
1992 MAY	BDL	BDL	BDL	.	.	BDL	.
ATRATONE (NG/L)		DET'N LIMIT = 50.0		GUIDELINE = N/A			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CYANAZINE (BLADEX) (NG/L)		DET'N LIMIT = 100.0		GUIDELINE = 10000 (A2)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DESETHYL ATRAZINE (NG/L)		DET'N LIMIT = 200.0		GUIDELINE = 60000 (A2)			
1991 JAN	BDL	.	.	.	.	BDL	BDL
1991 FEB	BDL	.	.	.	.	BDL	BDL
1991 MAR	ITS	.	.	.	.	BDL	BDL
1991 APR	BDL	.	.	.	.	BDL	BDL
1991 MAY	BDL	.	.	.	.	BDL	BDL
1991 JUN	BDL	.	.	.	.	BDL	BDL
1991 JUL	1AW	.	.	.	.	BDL	BDL
1991 AUG	.	1AW	1AW	1AW	1AW	1AW	.
1991 SEP	.	BDL	BDL	BDL	BDL	1AW	.
1991 NOV	.	BDL	BDL	.	.	BDL	.
1992 MAY	BDL	BDL	BDL	.	.	BDL	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
PESTICIDES AND PCB					
ATRAZINE (NG/L)		DET'N LIMIT = 50.0	GUIDELINE = 60000 (A2)		
1991 JAN	BDL	BDL			
1991 FEB	BDL	BDL			
1991 MAR	180,000 <T	BDL			
1991 APR	80,000 <T	BDL			
1991 MAY	90,000 <T	BDL			
1991 JUN	BDL	BDL			
1991 JUL	1AW	1AW			
1992 APR	BDL	BDL			
1992 MAY	BDL	BDL			
1992 OCT	BDL	BDL			
ATRATONE (NG/L)		DET'N LIMIT = 50.0	GUIDELINE = N/A		
BDL	BDL	BDL			
CYANAZINE (BLADEX) (NG/L)		DET'N LIMIT = 100.0	GUIDELINE = 10000 (A2)		
BDL	BDL	BDL			
DESETHYL ATRAZINE (NG/L)		DET'N LIMIT = 200.0	GUIDELINE = 60000 (A2)		
1991 JAN	BDL	BDL			
1991 FEB	BDL	BDL			
1991 MAR	BDL	BDL			
1991 APR	BDL	BDL			
1991 MAY	BDL	BDL			
1991 JUN	BDL	BDL			
1991 JUL	1AW	1AW			
1992 APR	BDL	BDL			
1992 MAY	BDL	BDL			
1992 OCT	BDL	BDL			

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS HAMP RAV ERAMOSA RIVER ARKEL SPRING #6 PRETREATED ARKEL SPRING #7 PRETREATED ARKEL SPRING #8 PRETREATED CLYTHE WELL PRETREATED MEMBRO WELL PRETREATED

PESTICIDES AND PCB

DESETHYL SIMAZINE (NG/L)		DET'M LIMIT = 200.0		GUIDELINE = 10000 (A2)			
76 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
PROMETONE (NG/L)		DET'M LIMIT = 50.000		GUIDELINE = 52500 (D3)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
PROPACINE (NG/L)		DET'M LIMIT = 50.000		GUIDELINE = 700000 (D3)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
PROMETRYNE (NG/L)		DET'M LIMIT = 50.000		GUIDELINE = 1000 (A2)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
METRIBUZIN (SENCOR) (NG/L)		DET'M LIMIT = 100.0		GUIDELINE = 80000 (A1)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
SIMAZINE (NG/L)		DET'M LIMIT = 50.00		GUIDELINE = 10000 (A2)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
ALACHLOR (LASSO) (NG/L)		DET'M LIMIT = 500.0		GUIDELINE = 5000 (A2)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
METOLACHLOR (NG/L)		DET'M LIMIT = 500.0		GUIDELINE = 50000 (A2)			
82 SAMPLES	BDL	BDL	BDL	BDL	BDL	BDL	IAM
HEXACHLOROCYCLOPENTADIEN (NG/L)		DET'M LIMIT = 5.00		GUIDELINE = 200000 (D4)			
65 SAMPLES	LOU	BDL	BDL	BDL	BDL	BDL	IAM

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOMNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
PESTICIDES AND PCB							
DESETHYL SIMAZINE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 200.0 (A2)							

PROMETONE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 50.000 (A2)							

PROPACINE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 50.000 (A2)							

PROMETRYNE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 1000 (A2)							

METRIBUZIN (SENCOR) (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 100.0 (A1)							

SIMAZINE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 50.000 (A2)							

ALACHLOR (LASSO) (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 500.0 (A2)							

METOLACHLOR (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 500.0 (A2)							

HEXACHLOROCYCLOPENTADIENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 5.00 (A2)							

HEXACHLOROCYCLOPENTADIENE (NG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 206000 (A2)							

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAM WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
PESTICIDES AND PCB							
DESETHYL SIMAZINE (NG/L)	BDL	BDL	DET'M LIMIT = 200.0	BDL	BDL	BDL	BDL
GUIDELINE = 10000 (A2)							
PROMETONE (NG/L)	BDL	BDL	DET'M LIMIT = 50.000	BDL	BDL	BDL	BDL
GUIDELINE = 52500 (D3)							
PROPAMAZINE (NG/L)	BDL	BDL	DET'M LIMIT = 50.000	BDL	BDL	BDL	BDL
GUIDELINE = 700000 (D3)							
PROMETRYNE (NG/L)	BDL	BDL	DET'M LIMIT = 50.000	BDL	BDL	BDL	BDL
GUIDELINE = 1000 (A2)							
METRIBUZIN (SENCOR)	BDL	BDL	DET'M LIMIT = 100.0	BDL	BDL	BDL	BDL
GUIDELINE = 80000 (A1)							
SIMAZINE (NG/L)	BDL	BDL	DET'M LIMIT = 50.00	BDL	BDL	BDL	BDL
GUIDELINE = 10000 (A2)							
ALACHLOR (LASSO) (NG/L)	BDL	BDL	DET'M LIMIT = 500.0	BDL	BDL	BDL	BDL
GUIDELINE = 5000 (A2)							
METOLACHLOR (NG/L)	BDL	BDL	DET'M LIMIT = 500.0	BDL	BDL	BDL	BDL
GUIDELINE = 50000 (A2)							
HEXACHLOROCYCLOPENTADIEN (NG/L)	BDL	BDL	DET'M LIMIT = 5.00	BDL	BDL	BDL	BDL
GUIDELINE = 206000 (D4)							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PALSLEY WELL TREATED	U OF G. WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
PESTICIDES AND PCB					
DESETHYL SIMAZINE (NG/L)		DET'N LIMIT = 200.0		GUIDELINE = 10000 (A2)	
BOL	BOL				
PROMETONE (NG/L)		DET'N LIMIT = 50.000		GUIDELINE = 52500 (03)	
BOL	BOL				
PROPACINE (NG/L)		DET'N LIMIT = 50.000		GUIDELINE = 700000 (03)	
BOL	BOL				
PROMETRYNE (NG/L)		DET'N LIMIT = 50.000		GUIDELINE = 1000 (A2)	
BOL	BOL				
METRIBUZIN (SENCOR) (NG/L)		DET'N LIMIT = 100.0		GUIDELINE = 80000 (A1)	
BOL	BOL				
SIMAZINE (NG/L)		DET'N LIMIT = 50.00		GUIDELINE = 10000 (A2)	
BOL	BOL				
ALACHLOR (LASSO) (NG/L)		DET'N LIMIT = 500.0		GUIDELINE = 5000 (A2)	
BOL	BOL				
METOLACHLOR (NG/L)		DET'N LIMIT = 500.0		GUIDELINE = 50000 (A2)	
BOL	BOL				
HEXACHLOROCYCLOPENTADIEN (NG/L)		DET'N LIMIT = 5.00		GUIDELINE = 206000 (04)	
BOL	BOL				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERANOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
PHENOLICS						
PHENOLICS (UG/L)		DET'N LIMIT =	0.2	GUIDELINE =	N/A	
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	BDL					
1991 AUG	BDL					
1991 SEP	BDL					
1991 OCT	BDL					
1991 NOV	BDL					
1992 MAR	BDL					
1992 AUG	BDL					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREAK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
PHENOLICS							
PHENOLICS (UG/L)							
DET'N LIMIT = 0.2							
GUIDELINE = N/A							
1991 JAN							
1991 FEB	BDL						
1991 MAR	.600 <T						
1991 APR	BDL						
1991 MAY	.800 <T						
1991 JUN	BDL						
1991 JUL	1,000 <T						
1991 AUG	BDL						
1991 SEP		BDL					
1991 OCT		.400 <T		BDL	BDL	BDL	BDL
1991 NOV				.400 <T	.400 <T	.400 <T	.600 <T
1992 MAR							
1992 APR	.400 <T			BDL	BDL	BDL	BDL
1992 AUG							
1992 OCT	BDL			BDL	BDL	BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
PHENOLICS							
PHENOLICS (UG/L)	DET'N LIMIT =		0.2	GUIDELINE = N/A			
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	BDL
1991 MAR	<400	.	.	.	.	.	BDL
1991 APR	<400	.	.	.	.	.	BDL
1991 MAY	<400	.	.	.	.	.	INR
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	.	BDL	.	BDL	BDL	.	.
1991 SEP	.	BDL	BDL	BDL	BDL	BDL	.
1991 NOV	.	BDL	BDL	BDL	BDL	BDL	.
1992 MAY	BDL	BDL	BDL	.	BDL	BDL	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	PHENOLICS (UG/L)				PHENOLICS			
		DET'N LIMIT =		GUIDELINE =		DET'N LIMIT =		GUIDELINE =	
		DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD STANDING				
1991 JAN		BDL				1991 JAN			
1991 FEB		BDL				1991 FEB			
1991 MAR		BDL				1991 MAR			
1991 APR		BDL				1991 APR			
1991 MAY		BDL				1991 MAY			
1991 JUN		BDL				1991 JUN			
1991 JUL		BDL				1991 JUL			
1991 APR		BDL				1991 APR			
1992 MAY		BDL				1992 MAY			
1992 OCT		BDL				1992 OCT			

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
POLYAROMATIC HYDROCARBONS						
PHENANTHRENE (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
ANTHRACENE (NG/L)		DET'N LIMIT = 1.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
FLUORANTHRENE (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = 42000 (D4)		
48 SAMPLES	BDL	IAW				IAW
PYRENE (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
BENZO(A)ANTHRACENE (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
CHRYSENE (NG/L)		DET'N LIMIT = 50.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
DIMETH. BENZ(A)ANTHR (NG/L)		DET'N LIMIT = 5.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
BENZO(E) PYRENE (NG/L)		DET'N LIMIT = 50.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
BENZO(B) FLUORANTHEN (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
PERYLENE (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
BENZO(K) FLUORANTHEN (NG/L)		DET'N LIMIT = 1.0		GUIDELINE = N/A		
48 SAMPLES	BDL	IAW				IAW
BENZO(A) PYRENE (NG/L)		DET'N LIMIT = 5.0		GUIDELINE = 10 (A1)		
48 SAMPLES	BDL	IAW				IAW

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOONEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
POLYAROMATIC HYDROCARBONS							
PHENANTHRENE (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
ANTHRACENE (NG/L)		DET'M LIMIT = 1.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
FLUORANTHENE (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 42000 (04)			
	BDL	IAW			IAW		
PYRENE (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(A)ANTHRACENE (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
CHRYSENE (NG/L)		DET'M LIMIT = 50.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
DIMETH. BENZ(A)ANTHR (NG/L)		DET'M LIMIT = 5.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(E) PYRENE (NG/L)		DET'M LIMIT = 50.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(B) FLUORANTHENE (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
PERYLENE (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(K) FLUORANTHENE (NG/L)		DET'M LIMIT = 1.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(A) PYRENE (NG/L)		DET'M LIMIT = 5.0		GUIDELINE = 10 (A1)			
	BDL	IAW			IAW		

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
POLYAROMATIC HYDROCARBONS							
PHENANTHRENE (NG/L)	BDL	IAW	DET'M LIMIT = 10.0	GUIDELINE = N/A	IAW	IAW	BDL
ANTHRACENE (NG/L)	BDL	IAW	DET'M LIMIT = 1.0	GUIDELINE = N/A	IAW	IAW	BDL
FLUORANTHENE (NG/L)	BDL	IAW	DET'M LIMIT = 20.0	GUIDELINE = 42000 (D4)	IAW	IAW	BDL
PYRENE (NG/L)	BDL	IAW	DET'M LIMIT = 20.0	GUIDELINE = N/A	IAW	IAW	BDL
BENZO(A)ANTHRACENE (NG/L)	BDL	IAW	DET'M LIMIT = 20.0	GUIDELINE = N/A	IAW	IAW	BDL
CHRYSENE (NG/L)	BDL	IAW	DET'M LIMIT = 50.0	GUIDELINE = N/A	IAW	IAW	BDL
DIMETH. BENZ(A)ANTHR (NG/L)	BDL	IAW	DET'M LIMIT = 5.0	GUIDELINE = N/A	IAW	IAW	BDL
BENZO(E) PYRENE (NG/L)	BDL	IAW	DET'M LIMIT = 50.0	GUIDELINE = N/A	IAW	IAW	BDL
BENZO(B) FLUORANTHENE (NG/L)	BDL	IAW	DET'M LIMIT = 10.0	GUIDELINE = N/A	IAW	IAW	BDL
PERYLENE (NG/L)	BDL	IAW	DET'M LIMIT = 10.0	GUIDELINE = N/A	IAW	IAW	BDL
BENZO(K) FLUORANTHENE (NG/L)	BDL	IAW	DET'M LIMIT = 1.0	GUIDELINE = N/A	IAW	IAW	BDL
BENZO(A) PYRENE (NG/L)	BDL	IAW	DET'M LIMIT = 5.0	GUIDELINE = 10 (A1)	IAW	IAW	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
POLYAROMATIC HYDROCARBONS					
PHENANTHRENE (NG/L)	BDL	BDL	DET'M LIMIT = 10.0	GUIDELINE = N/A	BDL
ANTHRACENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.0	GUIDELINE = N/A	BDL
FLUORANTHRENE (NG/L)	BDL	BDL	DET'M LIMIT = 20.0	GUIDELINE = 42000 (D4)	BDL
PYRENE (NG/L)	BDL	BDL	DET'M LIMIT = 20.0	GUIDELINE = N/A	BDL
BENZO(A)ANTHRACENE (NG/L)	BDL	BDL	DET'M LIMIT = 20.0	GUIDELINE = N/A	BDL
CHRYSENE (NG/L)	BDL	BDL	DET'M LIMIT = 50.0	GUIDELINE = N/A	BDL
DIMETH. BENZ(A)ANTHR (NG/L)	BDL	BDL	DET'M LIMIT = 5.0	GUIDELINE = N/A	BDL
BENZO(E) PYRENE (NG/L)	BDL	BDL	DET'M LIMIT = 50.0	GUIDELINE = N/A	BDL
BENZO(B) FLUORANTHENE (NG/L)	BDL	BDL	DET'M LIMIT = 10.0	GUIDELINE = N/A	BDL
PERYLENE (NG/L)	BDL	BDL	DET'M LIMIT = 10.0	GUIDELINE = N/A	BDL
BENZO(K) FLUORANTHENE (NG/L)	BDL	BDL	DET'M LIMIT = 1.0	GUIDELINE = N/A	BDL
BENZO(A) PYRENE (NG/L)	BDL	BDL	DET'M LIMIT = 5.0	GUIDELINE = 10 (A1)	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERANDS RAW	ER PRETREAT	ARKEL SPRING #6 PRETREAT	ARKEL SPRING #7 PRETREAT	ARKEL SPRING #8 PRETREAT	CARTER WELL PRETREAT	CLYME WELL PRETREAT	MEMBRO WELL PRETREAT
POLYAROMATIC HYDROCARBONS								
BENZO(G,H,I) PERYLENE (NG/L)			DET'N LIMIT = 20.0		GUIDELINE = N/A			
48 SAMPLES	BDL	IAW						IAW
DIBENZO(A,H) ANTHRAC (NG/L)			DET'N LIMIT = 10.0		GUIDELINE = N/A			
48 SAMPLES	BDL	IAW						IAW
INDENO(1,2,3-C,D) PY (NG/L)			DET'N LIMIT = 20.0		GUIDELINE = N/A			
48 SAMPLES	BDL	IAW						IAW
BENZO(B) CHRYSENE (NG/L)			DET'N LIMIT = 2.0		GUIDELINE = N/A			
48 SAMPLES	BDL	IAW						IAW
CORONENE (NG/L)			DET'N LIMIT = 10.0		GUIDELINE = N/A			
48 SAMPLES	BDL	IAW						IAW

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
POLYAROMATIC HYDROCARBONS							
BENZO(G,H,I) PERYLENE (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
DIBENZO(A,H) ANTHRACENE (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
INDENO(1,2,3-C,D) PY (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
BENZO(B) CHRYSENE (NG/L)		DET'M LIMIT = 2.0		GUIDELINE = N/A			
	BDL	IAW			IAW		
CORONENE (NG/L)		DET'M LIMIT = 10.0		GUIDELINE = N/A			
	BDL	IAW			IAW		

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	HOODS PUMP TREATED
POLYAROMATIC HYDROCARBONS							
BENZO(G,H,I) PERYLENE (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL	IAW			IAW	IAW		BDL
DIBENZO(A,H) ANTHRACENE (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A			
BDL	IAW			IAW	IAW		BDL
INDENO(1,2,3-C,D) PY (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL	IAW			IAW	IAW		BDL
BENZO(B) CHRYSENE (NG/L)		DET'N LIMIT = 2.0		GUIDELINE = N/A			
BDL	IAW			IAW	IAW		BDL
CORONENE (NG/L)		DET'N LIMIT = 10.0		GUIDELINE = N/A			
BDL	IAW			IAW	IAW		BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD STANDING
POLYAROMATIC HYDROCARBONS					
BENZO(G,H,I) PERYLENE (NG/L)	BDL	DET'M LIMIT = 20.0	GUIDELINE = N/A		
DIBENZO(A,H) ANTHRACENE (NG/L)	BDL	BDL		BDL	
INDENO(1,2,3-C,D) PY (NG/L)	BDL	DET'M LIMIT = 10.0	GUIDELINE = N/A		
BENZO(B) CHRYSENE (NG/L)	BDL	BDL		BDL	
CORONENE (NG/L)	BDL	DET'M LIMIT = 20.0	GUIDELINE = N/A		
		DET'M LIMIT = 2.0	GUIDELINE = N/A		
	BDL	BDL		BDL	
		DET'M LIMIT = 10.0	GUIDELINE = N/A		
	BDL	BDL		BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PLUM RAV	ERAMOSA RIVER RAV	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	MEMBRO WELL PRETREATED
SPECIFIC PESTICIDES					
TOXAPHENE (NG/L)		DET'N LIMIT = 500.0	GUIDELINE = 5000 (A1)		
29 SAMPLES	BOL				
2,4,5-T (NG/L)		DET'N LIMIT = 50.0	GUIDELINE = 280000 (A1)		
5 SAMPLES	ILA				
2,4-D (NG/L)		DET'N LIMIT = 100.0	GUIDELINE = 100000 (A1)		
5 SAMPLES	ILA				
2,4-DB (NG/L)		DET'N LIMIT = 200.0	GUIDELINE = N/A		
5 SAMPLES	ILA				
2,4-D PROPIONIC ACID (NG/L)		DET'N LIMIT = 100.0	GUIDELINE = N/A		
5 SAMPLES	ILA				
DICAMBA (NG/L)		DET'N LIMIT = 50.0	GUIDELINE = 120000 (A1)		
5 SAMPLES	ILA				
2,4,5-TP (SILVEX) (NG/L)		DET'N LIMIT = 20.00	GUIDELINE = 10000 (A1)		
5 SAMPLES	ILA				
DIAZINON (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = 20000 (A1)		
5 SAMPLES	BOL				
DICHLOROVOS (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A		
2 SAMPLES	LOU				
CHLORPYRIFOS (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A		
5 SAMPLES	BOL				
ETHION (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = 35000 (G)		
5 SAMPLES	BOL				
MALATHION (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = 190000 (A1)		
5 SAMPLES	BOL				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
SPECIFIC PESTICIDES							
TOXAPHENE (NG/L)		DET'M LIMIT = 500.0		GUIDELINE = 5000 (A1)			
	BOL						
2,4,5-T (NG/L)		DET'M LIMIT = 50.0		GUIDELINE = 280000 (A1)			
	BOL						
2,4-D (NG/L)		DET'M LIMIT = 100.0		GUIDELINE = 100000 (A1)			
	BOL						
2,4-DB (NG/L)		DET'M LIMIT = 200.0		GUIDELINE = N/A			
	BOL						
2,4-D PROPIONIC ACID (NG/L)		DET'M LIMIT = 100.0		GUIDELINE = N/A			
	BOL						
DICAMBA (NG/L)		DET'M LIMIT = 50.0		GUIDELINE = 120000 (A1)			
	BOL						
2,4,5-TP (SILVEX) (NG/L)		DET'M LIMIT = 20.00		GUIDELINE = 10000 (A1)			
	BOL						
DIAZINON (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 20000 (A1)			
	ISM						
DICHLOROVOS (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
CHLORPYRIFOS (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
ETHION (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 35000 (G)			
	ISM						
MALATHION (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 190000 (A1)			
	ISM						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
SPECIFIC PESTICIDES							
TOXAPHENE (NG/L)	DET'N LIMIT = 500.0	GUIDELINE = 5000 (A1)					BDL
2,4,5-T (NG/L)	DET'N LIMIT =	GUIDELINE = 280000 (A1)					BDL
2,4-D (NG/L)	DET'N LIMIT = 100.0	GUIDELINE = 100000 (A1)					BDL
2,4-DB (NG/L)	DET'N LIMIT = 200.0	GUIDELINE = N/A					BDL
2,4-D PROPIONIC ACID (NG/L)	DET'N LIMIT = 100.0	GUIDELINE = N/A					BDL
DICAMBA (NG/L)	DET'N LIMIT = 50.0	GUIDELINE = 120000 (A1)					BDL
2,4,5-TP (SILVEX) (NG/L)	DET'N LIMIT = 20.00	GUIDELINE = 10000 (A1)					BDL
DIAZINON (NG/L)	DET'N LIMIT = 20.0	GUIDELINE = 20000 (A1)					BDL
DICHLOROVOS (NG/L)	DET'N LIMIT = 20.0	GUIDELINE = N/A					BDL
CHLORPYRIFOS (NG/L)	DET'N LIMIT = 20.0	GUIDELINE = N/A					100
ETHION (NG/L)	DET'N LIMIT = 20.0	GUIDELINE = 35000 (G)					BDL
MALATHION (NG/L)	DET'N LIMIT = 20.0	GUIDELINE = 190000 (A1)					BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
SPECIFIC PESTICIDES					
TOXAPHENE (NG/L)	BDL	DET'N LIMIT = 500.0	GUIDELINE = 5000 (A1)	BDL	.
2,4,5-T (NG/L)	BDL	DET'N LIMIT = 50.0	GUIDELINE = 280000 (A1)	BDL	.
2,4-D (NG/L)	BDL	DET'N LIMIT = 100.0	GUIDELINE = 100000 (A1)	.	.
2,4-DB (NG/L)	BDL	DET'N LIMIT = 200.0	GUIDELINE = N/A	.	.
2,4-D PROPIONIC ACID (NG/L)	BDL	DET'N LIMIT = 100.0	GUIDELINE = N/A	.	.
DICAMBA (NG/L)	BDL	DET'N LIMIT = 50.0	GUIDELINE = 120000 (A1)	.	.
2,4,5-TP (SILVEX) (NG/L)	BDL	DET'N LIMIT = 20.00	GUIDELINE = 10000 (A1)	.	.
DIAZINON (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = 20000 (A1)	.	.
DICHLOROVOS (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = N/A	.	.
CHLORPYRIFOS (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = N/A	.	.
ETION (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = 35000 (G)	.	.
MALATHION (NG/L)	BDL	DET'N LIMIT = 20.0	GUIDELINE = 190000 (A1)	.	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS POND RAV	ERAMOSA RIVER RAV	ARKEl SPRING #6 PRETREATED	ARKEl SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
SPECIFIC PESTICIDES						
HEVINPHOS (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A			
5 SAMPLES	BDL					
METHYL PARATHION (NG/L)		DET'N LIMIT = 50.0	GUIDELINE = 9000 (03)			
5 SAMPLES	BDL					
METHYLTRITHION (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A			
5 SAMPLES	BDL					
PARATHION (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = 50000 (A1)			
5 SAMPLES	BDL					
PHORATE (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = 2000 (A2)			
5 SAMPLES	BDL					
RELDAN (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A			
5 SAMPLES	BDL					
RONNEL (NG/L)		DET'N LIMIT = 20.0	GUIDELINE = N/A			
5 SAMPLES	BDL					
CARBOFURAN (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = 90000 (A1)			
6 SAMPLES	BDL					
CHLOROPHOPHAM (CIIPC) (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = 350000 (G)			
6 SAMPLES	BDL					
DIALLATE (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = N/A			
6 SAMPLES	BDL					
EPTAM (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = N/A			
6 SAMPLES	BDL					
IPC (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = N/A			
6 SAMPLES	BDL					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
SPECIFIC PESTICIDES							
MEVINPHOS (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
METHYL PARATHION (NG/L)		DET'M LIMIT = 50.0		GUIDELINE = 9000 (G3)			
	ISM						
METHYLTRITHION (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
PARATHION (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 50000 (A1)			
	ISM						
PHORATE (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = 2000 (A2)			
	ISM						
RELDAN (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
RONNEL (NG/L)		DET'M LIMIT = 20.0		GUIDELINE = N/A			
	ISM						
CARBOFURAN (NG/L)		DET'M LIMIT = 2000.0		GUIDELINE = 90000 (A1)			
	BDL						
CHLOROPHOS (CIPC) (NG/L)		DET'M LIMIT = 2000.0		GUIDELINE = 350000 (G)			
	BDL						
DIALLATE (NG/L)		DET'M LIMIT = 2000.0		GUIDELINE = N/A			
	BDL						
EPTAM (NG/L)		DET'M LIMIT = 2000.0		GUIDELINE = N/A			
	BDL						
IPC (NG/L)		DET'M LIMIT = 2000.0		GUIDELINE = N/A			
	BDL						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
SPECIFIC PESTICIDES							
MEVINPHOS (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL							BDL
METHYL PARATHION (NG/L)		DET'N LIMIT = 50.0		GUIDELINE = 9000 (D3)			
BDL							BDL
METHYLTRITHION (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL							BDL
PARATHION (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = 50000 (A1)			
BDL							BDL
PHORATE (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = 2000 (A2)			
BDL							BDL
RELDAN (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL							BDL
RONNEL (NG/L)		DET'N LIMIT = 20.0		GUIDELINE = N/A			
BDL							BDL
CARBOFURAN (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 90000 (A1)			
BDL							BDL
CHLOROPHOPAM (CIPC) (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 350000 (G)			
BDL							BDL
DIALLATE (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = N/A			
BDL							BDL
EPTAM (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = N/A			
BDL							BDL
IPC (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = N/A			
BDL							BDL

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
SPECIFIC PESTICIDES					
MEVINPHOS (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = N/A	
METHYL PARATHION (NG/L)	BOL	DET'M LIMIT = 50.0		GUIDELINE = 9000 (G3)	
METHYLTRITHION (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = N/A	
PARATHION (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = 50000 (A1)	
PHORATE (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = 2000 (A2)	
RELDAN (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = N/A	
RONNEL (NG/L)	BOL	DET'M LIMIT = 20.0		GUIDELINE = N/A	
CARBOFURAN (NG/L)	BOL	DET'M LIMIT = 2000.0		GUIDELINE = 90000 (A1)	
CHLOROPHAPH (CIPC) (NG/L)	BOL	DET'M LIMIT = 2000.0		GUIDELINE = 350000 (G)	
DIALLATE (NG/L)	BOL	DET'M LIMIT = 2000.0		GUIDELINE = N/A	
EPTAM (NG/L)	BOL	DET'M LIMIT = 2000.0		GUIDELINE = N/A	
TPC (NG/L)	BOL	DET'M LIMIT = 2000.0		GUIDELINE = N/A	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMRO WELL PRETREATED
SPECIFIC PESTICIDES						
PROPOXUR (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = 140000 (03)			
6 SAMPLES						
	BDL					

CARBARYL (NG/L)		DET'N LIMIT = 200.0	GUIDELINE = 90000 (A1)			
6 SAMPLES						
	BDL					

BUTYLATE (NG/L)		DET'N LIMIT = 2000.0	GUIDELINE = 245000 (03)			
6 SAMPLES						
	BDL					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
SPECIFIC PESTICIDES							
PROPOXUR (NG/L)	)	DET'N LIMIT = 2000.0	GUIDELINE = 140000 (D3)				
		BDL					
CARBARYL (NG/L)	)	DET'N LIMIT = 200.0	GUIDELINE = 90000 (A1)				
		BDL					
BUTYLATE (NG/L)	)	DET'N LIMIT = 2000.0	GUIDELINE = 245000 (D3)				
		BDL					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF GUELPH RAN	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SKALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
SPECIFIC PESTICIDES							
PROPOXUR (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 140000 (03)			
	BDL						BDL
CARBARYL (NG/L)		DET'N LIMIT = 200.0		GUIDELINE = 90000 (A1)			
	BDL						BDL
BUTYLATE (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 245000 (03)			
	BDL						BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	SPECIFIC PESTICIDES							
		DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING				
PROPOXUR (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 140000 (Q3)					
	BDL								
CARBARYL (NG/L)		DET'N LIMIT = 200.0		GUIDELINE = 90000 (A1)					
	BDL								
BUTYLATE (NG/L)		DET'N LIMIT = 2000.0		GUIDELINE = 245000 (Q3)					
	BDL								

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
VOLATILES						
BENZENE (UG/L)	BDL	DET'N LIMIT = 0.05	BDL	BDL	BDL	BDL
GUIDELINE = 5 (A1)						
TOLUENE (UG/L)	BDL	DET'N LIMIT = 0.05	BDL	BDL	BDL	BDL
GUIDELINE = 24 (A3)						
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	BDL					
1991 AUG						
1991 SEP		BDL	BDL	BDL	BDL	BDL
1991 OCT						
1991 NOV		BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL	BDL	
GUIDELINE = 2.4 (A3)						
ETHYLBENZENE (UG/L)		DET'N LIMIT = 0.05				
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	.050 <T					
1991 AUG		BDL	BDL	BDL	BDL	BDL
1991 SEP						
1991 OCT		BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL	BDL	
GUIDELINE = 300 (A3*)						
P-XYLENE (UG/L)	BDL	DET'N LIMIT = 0.10	BDL	BDL	BDL	BDL
GUIDELINE = 0.10						
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	.050 <T					
1991 AUG		BDL	BDL	BDL	BDL	BDL
1991 SEP						
1991 OCT		BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL	BDL	
GUIDELINE = 0.050 <T						
GUIDELINE = 0.050 <T						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

VOLATILES	DET'M LIMIT = 0.05										GUIDELINE = 5 (A1)									
	BENZENE (UG/L)	SILVERCREX WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED		BENZENE (UG/L)	SILVERCREX WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED	
TOLUENE (UG/L)																				
DET'M LIMIT = 0.05																				
1991 JAN	BDL										BDL									BDL
1991 FEB											BDL									
1991 MAR											BDL									
1991 APR											BDL									
1991 MAY											BDL									
1991 JUN											BDL									
1991 JUL											BDL									
1991 AUG											BDL									
1991 SEP											BDL									
1991 OCT											BDL									
1991 NOV											BDL									
1992 MAR											BDL									
1992 APR											BDL									
1992 AUG											BDL									
1992 OCT											BDL									
DET'M LIMIT = 0.05																				
GUIDELINE = 24 (A3)																				
ETHYLBENZENE (UG/L)																				
DET'M LIMIT = 0.05																				
1991 JAN											BDL									
1991 FEB											BDL									
1991 MAR											BDL									
1991 APR											BDL									
1991 MAY											BDL									
1991 JUN											BDL									
1991 JUL											BDL									
1991 AUG											BDL									
1991 SEP											BDL									
1991 OCT											BDL									
1991 NOV											BDL									
1992 MAR											BDL									
1992 APR											BDL									
1992 AUG											BDL									
1992 OCT											BDL									
DET'M LIMIT = 0.10																				
GUIDELINE = 300 (A3*)																				
P-XYLENE (UG/L)																				
DET'M LIMIT = 0.10																				
1991 JAN											BDL									
1991 FEB											BDL									
1991 MAR											BDL									
1991 APR											BDL									
1991 MAY											BDL									
1991 JUN											BDL									
1991 JUL											BDL									
1991 AUG											BDL									
1991 SEP											BDL									
1991 OCT											BDL									
1991 NOV											BDL									
1992 MAR											BDL									
1992 APR											BDL									
1992 AUG											BDL									
1992 OCT											BDL									
DET'M LIMIT = 0.10																				
GUIDELINE = 300 (A3*)																				
1991 JAN											BDL									
1991 FEB											BDL									
1991 MAR											BDL									
1991 APR											BDL									
1991 MAY											BDL									
1991 JUN											BDL									
1991 JUL											BDL									
1991 AUG											BDL									
1991 SEP											BDL									
1991 OCT											BDL									
1991 NOV											BDL									
1992 MAR											BDL									
1992 APR											BDL									
1992 AUG											BDL									
1992 OCT											BDL									
DET'M LIMIT = 0.10																				
GUIDELINE = 300 (A3*)																				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM FREE FLOW	DIST. SYSTEM STANDING	DIST. SYSTEM VICTORIA RD	DIST. SYSTEM FREE FLOW	DIST. SYSTEM IMPERIAL RD N	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES							
BENZENE (UG/L)	BDL	BDL	DET'N LIMIT = 0.05	BDL	GUIDELINE = 5 (A1)	BDL	
TOUENE (UG/L)							
1991 JAN	BDL	BDL	DET'N LIMIT = 0.05	BDL	GUIDELINE = 24 (A3)	BDL	
1991 FEB	BDL	BDL		BDL		BDL	
1991 MAR	BDL	BDL		BDL		BDL	
1991 APR	BDL	BDL		BDL		BDL	
1991 MAY	BDL	BDL		BDL		BDL	
1991 JUN	BDL	BDL		BDL		BDL	
1991 JUL	BDL	BDL		BDL		BDL	
1991 AUG	*	*		BDL		BDL	
1991 OCT	*	*		*		BDL	
1992 APR	BDL	BDL		*		BDL	
1992 MAY	*	*		*		BDL	
1992 OCT	BDL	*		*		BDL	
ETHYLBENZENE (UG/L)							
1991 JAN	BDL	.050 <1	DET'N LIMIT = 0.05	BDL	GUIDELINE = 2.4 (A3)	BDL	
1991 FEB	BDL	.050 <1		BDL		BDL	
1991 MAR	.050 <1	.050 <1		BDL		.050 <1	
1991 APR	BDL	BDL		BDL		BDL	
1991 MAY	.050 <1	.050 <1		BDL		BDL	
1991 JUN	.100 <1	.100 <1		BDL		.050 <1	
1991 JUL	.100 <1	.100 <1		BDL		BDL	
1991 AUG	*	.100 <1		BDL		BDL	
1991 OCT	*	*		*		.050 <1	
1992 APR	.050 <1	.100 <1		*		BDL	
1992 MAY	BDL	*		*		BDL	
1992 OCT	BDL	*		*		BDL	
P-XYLENE (UG/L)							
1991 JAN	BDL	BDL	DET'N LIMIT = 0.10	BDL	GUIDELINE = 300 (A3*)	BDL	
1991 FEB	BDL	BDL		BDL		BDL	
1991 MAR	BDL	BDL		BDL		BDL	
1991 APR	BDL	BDL		BDL		BDL	
1991 MAY	BDL	BDL		BDL		BDL	
1991 JUN	BDL	BDL		BDL		BDL	
1991 JUL	BDL	BDL		BDL		BDL	
1991 AUG	BDL	BDL		BDL		BDL	
1991 OCT	BDL	BDL		BDL		BDL	
1992 APR	BDL	BDL		BDL		BDL	
1992 MAY	BDL	BDL		BDL		BDL	
1992 OCT	BDL	BDL		BDL		BDL	

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

TABLE 4

WOODS PUMP
RAW

ERAMOSA RIVER
RAW

ARKEL SPRING #6
PRETREATED

ARKEL SPRING #7
PRETREATED

ARKEL SPRING #8
PRETREATED

CARTER WELL
PRETREATED

CLYTHE WELL
PRETREATED

MEMBRO WELL
PRETREATED

VOLATILES									
M-XYLENE (UG/L)		DET'N LIMIT = 0.10		GUIDELINE = 300 (A3*)					
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
O-XYLENE (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 300 (A3*)					
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
STYRENE (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 100 (D1)					
1991 JAN	.100 <T	.	.	.	.	.	.	.	.
1991 FEB	.050 <T	.	.	.	.	.	.	.	.
1991 MAR	BDL	.	.	.	.	.	.	.	.
1991 APR	BDL	.	.	.	.	.	.	.	.
1991 MAY	BDL	.	.	.	.	.	.	.	.
1991 JUN	.050 <T	.	.	.	.	.	.	.	.
1991 JUL	.050 <T	.	.	.	.	.	.	.	.
1991 AUG	BDL	.	.	.	.	.	.	.	BDL
1991 SEP	.	.	.	.	.	.	.	.	.
1991 OCT	.	.	.	.	.	.	.	.	.
1991 NOV	.	.	.	.	.	.	.	.	.
1992 MAR	.	.	.	.	.	.	.	.	.
1992 AUG	BDL	.100 <T	.100 <T	.100 <T	.050 <T	.050 <T	.050 <T	.050 <T	BDL
1,1-DICHLOROETHYLENE (UG/L)									
		DET'N LIMIT = 0.100		GUIDELINE = 7 (D1)					
1991 JAN	BDL	.	.	.	.	.	.	.	.
1991 FEB	BDL	.	.	.	.	.	.	.	.
1991 MAR	BDL	.	.	.	.	.	.	.	.
1991 APR	BDL	.	.	.	.	.	.	.	.
1991 MAY	BDL	.	.	.	.	.	.	.	.
1991 JUN	BDL	.	.	.	.	.	.	.	.
1991 JUL	BDL	.	.	.	.	.	.	.	.
1991 AUG	BDL	.	.	.	.	.	.	.	BDL
1991 SEP	.	.	.	.	.	.	.	.	.
1991 OCT	.	.	.	.	.	.	.	.	.
1991 NOV	.	.	.	.	.	.	.	.	.
1992 MAR	.	.	.	.	.	.	.	.	.
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
M-XYLENE (UG/L)		DET'M LIMIT = 0.10		GUIDELINE = 300 (A3*)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
O-XYLENE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 300 (A3*)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
STYRENE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 100 (D1)			
1991 JAN		.050 <T					
1991 FEB		.100 <T					
1991 MAR		.100 <T					
1991 APR		.050 <T					
1991 MAY		.050 <T					
1991 JUN		BDL					
1991 JUL		BDL					
1991 AUG		BDL			BDL		
1991 SEP	BDL		.050 <T	BDL		BDL	BDL
1991 OCT		.100 <T	.150 <T	.100 <T	.150 <T	.100 <T	.100 <T
1991 NOV	BDL						
1992 MAR	BDL						
1992 APR	.100 <T	.050 <T	.100 <T	.150 <T	.100 <T	.100 <T	.050 <T
1992 AUG	.050 <T	.050 <T	.050 <T	BDL		BDL	
1992 OCT							
1,1-DICHLOROETHYLENE (UG/L)							
		DET'M LIMIT = 0.100		GUIDELINE = 7 (D1)			
1991 JAN							
1991 FEB							
1991 MAR							
1991 APR							
1991 MAY							
1991 JUN							
1991 JUL							
1991 AUG		BDL			BDL		
1991 SEP	BDL		BDL	BDL		BDL	BDL
1991 OCT		BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	BDL						
1992 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 APR							
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 OCT		BDL	BDL	BDL		BDL	

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
VOLATILES							
M-XYLENE (UG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.10 GUIDELINE = 300 (A3*)							
O-XYLENE (UG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05 GUIDELINE = 300 (A3*)							
STYRENE (UG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05 GUIDELINE = 100 (D1)							
1991 JAN	.050 <T	.	.	.	.	.	.100 <T
1991 FEB	.100 <T	.	.	.	.	.	.100 <T
1991 MAR	BDL	.	.	.	.	.	.150 <T
1991 APR	BDL	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	.100 <T
1991 JUN	BDL	.	.	.	.	.	.100 <T
1991 JUL	.100 <T	.	.	.	.	.	.100 <T
1991 AUG	.	.	.	.	.	.	.300 <T
1991 SEP	.	.	.	.	.	.	.
1991 OCT	.	.	.	.	.	.	.
1991 NOV	.	.	.	.	.	.	.
1991 DEC	.	.	.	.	.	.	.
1992 JAN	.	.	.	.	.	.	.
1992 FEB	.	.	.	.	.	.	.
1992 MAR	.	.	.	.	.	.	.
1,1-DICHLOROETHYLENE (UG/L)							
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.100 GUIDELINE = 7 (D1)							
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	BDL
1991 MAR	BDL	.	.	.	.	.	BDL
1991 APR	BDL	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	BDL
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	BDL	.	.	.	.	.	BDL
1991 SEP	BDL	BDL	.	.	.	.	BDL
1991 OCT	BDL	BDL	.	.	.	.	BDL
1991 NOV	BDL	BDL	.	.	.	.	BDL
1991 DEC	BDL	BDL	.	.	.	.	BDL
1992 JAN	BDL	BDL	.	.	.	.	BDL
1992 FEB	BDL	BDL	.	.	.	.	BDL
1992 MAR	BDL	BDL	.	.	.	.	BDL
1992 APR	BDL	BDL	.	.	.	.	BDL
1992 MAY	BDL	BDL	.	.	.	.	BDL
1992 JUN	BDL	BDL	.	.	.	.	BDL
1992 JUL	BDL	BDL	.	.	.	.	BDL
1992 AUG	BDL	BDL	.	.	.	.	BDL
1992 SEP	BDL	BDL	.	.	.	.	BDL
1992 OCT	BDL	BDL	.	.	.	.	BDL
1992 NOV	BDL	BDL	.	.	.	.	BDL
1992 DEC	BDL	BDL	.	.	.	.	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES					
M-XYLENE (UG/L)		DET'N LIMIT = 0.10		GUIDELINE = 300 (A3*)	
BOL	BOL	BOL	BOL	BOL	BOL
O-XYLENE (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 300 (A3*)	
BOL	BOL	BOL	BOL	BOL	BOL
STYRENE (UG/L)		DET'N LIMIT = 0.05		GUIDELINE = 100 (D1)	
1991 JAN	BOL	.100 <T	BOL	BOL	BOL
1991 FEB	.050 <T	.100 <T	.150 <T	.050 <T	.050 <T
1991 MAR	.150 <T	.100 <T	.050 <T	.150 <T	.150 <T
1991 APR	BOL	.100 <T	BOL	BOL	BOL
1991 MAY	.050 <T	.050 <T	.050 <T	BOL	BOL
1991 JUN	.100 <T	.150 <T	.100 <T	.100 <T	.100 <T
1991 JUL	.100 <T	.100 <T	.100 <T	BOL	BOL
1991 AUG	.	.150 <T	.	BOL	BOL
1991 OCT	.	.	.	.100 <T	.100 <T
1992 APR	.050 <T	.	.	.150 <T	.150 <T
1992 MAY	.	.150 <T	.	.	.
1992 OCT	BOL	.	.	.100 <T	.100 <T
1,1-DICHLOROETHYLENE (UG/L)		DET'N LIMIT = 0.100		GUIDELINE = 7 (D1)	
1991 JAN	BOL	BOL	BOL	BOL	BOL
1991 FEB	BOL	BOL	BOL	BOL	BOL
1991 MAR	BOL	BOL	BOL	BOL	BOL
1991 APR	BOL	BOL	BOL	BOL	BOL
1991 MAY	BOL	BOL	BOL	BOL	BOL
1991 JUN	BOL	BOL	BOL	BOL	BOL
1991 JUL	BOL	BOL	BOL	BOL	BOL
1991 OCT	.	.	.	.100 <T	.100 <T
1992 APR	BOL	BOL	BOL	BOL	BOL
1992 MAY	.	.	.	BOL	BOL
1992 OCT	BOL	BOL	BOL	BOL	BOL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP
RAW

ERAMOSA RIVER
RAW

ARKEL SPRING #6
PRETREATED

ARKEL SPRING #7
PRETREATED

ARKEL SPRING #8
PRETREATED

CARTER WELL
PRETREATED

CLYTHE WELL
PRETREATED

MEMBRO WELL
PRETREATED

VOLATILES

METHYLENE CHLORIDE (UG/L)	BDL	BDL	BDL	DET'N LIMIT = 0.50	BDL	BDL	BDL	GUIDELINE = 50 (A1)	BDL	BDL	BDL	BDL
1,1,2-DICHLOROETHYLENE (UG/L)	BDL	BDL	BDL	DET'N LIMIT = 0.10	BDL	BDL	BDL	GUIDELINE = 70 (D1)	BDL	BDL	BDL	BDL
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 FEB	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 APR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 OCT	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

1,1-DICHLOROETHANE (UG/L)	BDL	BDL	BDL	DET'N LIMIT = 0.100	BDL	BDL	BDL	GUIDELINE = N/A	BDL	BDL	BDL	BDL
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 FEB	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 APR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 OCT	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOONEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
METHYLENE CHLORIDE (UG/L)	BDL	BDL	DET'N LIMIT = 0.50	BDL	GUIDELINE = 50 (M1)	BDL	BDL
T12-DICHLOROETHYLENE (UG/L)							
	BDL	DET'N LIMIT = 0.10	BDL	BDL	GUIDELINE = 70 (O1)	BDL	BDL
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL	BDL			BDL		
1991 SEP	BDL	BDL		BDL	BDL	BDL	BDL
1991 OCT	BDL	BDL		BDL	BDL	BDL	BDL
1991 NOV	BDL						
1992 MAR	BDL						
1992 APR	BDL	BDL		BDL	BDL	BDL	BDL
1992 AUG	BDL	BDL		BDL	BDL	BDL	BDL
1992 OCT	BDL	BDL		BDL	BDL	BDL	BDL
1,1'-DICHLOROETHANE (UG/L)							
	BDL	DET'N LIMIT = 0.100	GUIDELINE = N/A				
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL	BDL			BDL		
1991 SEP	BDL	BDL		BDL	BDL	BDL	BDL
1991 OCT	BDL	BDL		BDL	BDL	BDL	BDL
1991 NOV	BDL						
1992 MAR	BDL						
1992 APR	BDL	BDL		BDL	BDL	BDL	BDL
1992 AUG	BDL	BDL		BDL	BDL	BDL	BDL
1992 OCT	BDL	BDL		BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

VOLATILES							
METHYLENE CHLORIDE (UG/L)							
U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.50				GUIDELINE = 50 (A1)			
1,1,2-DICHLOROETHYLENE (UG/L)							
	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.10				GUIDE = 70 (D1)			
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	BDL
1991 MAR	BDL	.	.	.	.	.	BDL
1991 APR	BDL	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	BDL
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	BDL	.	.	BDL	BDL	.	.
1991 SEP	.	BDL	BDL	BDL	BDL	BDL	.
1991 NOV	.	BDL	BDL	BDL	BDL	BDL	.
1992 MAY	BDL	BDL	BDL	BDL	BDL	.100 <T	.
1,1,1-DICHLOROETHANE (UG/L)							
	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.100				GUIDELINE = N/A			
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	BDL
1991 MAR	BDL	.	.	.	.	.	BDL
1991 APR	BDL	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	BDL
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	.	.	.	.	.	.	BDL
1991 SEP	.	BDL	BDL	BDL	.900 <T	.800 <T	.
1991 OCT	.	BDL	BDL	BDL	.700 <T	BDL	.
1991 NOV	.	BDL	BDL	.900 <T	.900 <T	BDL	.
1992 MAY	BDL	BDL	BDL	.900 <T	.900 <T	.100 <T	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES					
METHYLENE CHLORIDE (UG/L)	BDL	BDL	DET'M LIMIT = 0.50	GUIDELINE = 50 (A1)	BDL
T12-DICHLOROETHYLENE (UG/L)					
1991 JAN	BDL	BDL	DET'M LIMIT = 0.10	GUIDELINE = 70 (O1)	BDL
1991 FEB	BDL	BDL			BDL
1991 MAR	BDL	BDL			BDL
1991 APR	BDL	BDL			BDL
1991 MAY	BDL	BDL			BDL
1991 JUN	BDL	BDL			BDL
1991 JUL	BDL	BDL			BDL
1991 AUG	BDL	BDL			BDL
1991 OCT	BDL	BDL			BDL
1992 APR	BDL	BDL			BDL
1992 MAY	BDL	BDL			BDL
1992 OCT	BDL	BDL			BDL
1,1-DICHLOROETHANE (UG/L)					
1991 JAN	BDL	BDL	DET'M LIMIT = 0.100	GUIDELINE = W/A	BDL
1991 FEB	BDL	BDL			BDL
1991 MAR	BDL	BDL			BDL
1991 APR	BDL	BDL			BDL
1991 MAY	BDL	BDL			BDL
1991 JUN	BDL	BDL			BDL
1991 JUL	BDL	BDL			BDL
1991 AUG	BDL	BDL			BDL
1991 OCT	BDL	BDL			BDL
1992 APR	BDL	BDL			BDL
1992 MAY	BDL	BDL			BDL
1992 OCT	BDL	BDL			BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
VOLATILES							
CHLOROFORM (UG/L)		DET'M LIMIT = 0.10	GUIDELINE = 350 (A1+)				
1991 JAN	BOL						
1991 FEB	BOL						
1991 MAR	BOL						
1991 APR	BOL						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG	BOL						
1991 SEP		BOL	4,900		BOL	BOL	.100 <T
1991 OCT							
1991 NOV		BOL	BOL	BOL	BOL	BOL	
1991 DEC		BOL	BOL	BOL	BOL	BOL	
1992 JAN		BOL	BOL	BOL	BOL	BOL	
1992 FEB							
1992 MAR							
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
1,1,1-TRICHLOROETHANE (UG/L)							
		DET'M LIMIT = 0.02	GUIDELINE = 200 (D1)				
1991 JAN	BOL						
1991 FEB	BOL						
1991 MAR	BOL						
1991 APR	BOL						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG		BOL	BOL		BOL	BOL	BOL
1991 SEP							
1991 OCT		BOL	BOL	BOL	BOL	BOL	
1991 NOV		BOL	BOL	BOL	BOL	BOL	
1991 DEC		BOL	BOL	BOL	BOL	BOL	
1992 JAN							
1992 FEB							
1992 MAR							
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
1,2-DICHLOROETHANE (UG/L)							
		DET'M LIMIT = 0.05	GUIDELINE = 5 (A1)				
1991 JAN	BOL						
1991 FEB	BOL						
1991 MAR	BOL						
1991 APR	BOL						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG		BOL	BOL		BOL	BOL	
1991 SEP							
1991 OCT		BOL	BOL	BOL	BOL	BOL	
1991 NOV		BOL	BOL	BOL	BOL	BOL	
1991 DEC		BOL	BOL	BOL	BOL	BOL	
1992 JAN							
1992 FEB							
1992 MAR							
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							
CARBON TETRACHLORIDE (UG/L)							
		DET'M LIMIT = 0.20	GUIDELINE = 5 (A1)				
1991 JAN	BOL						
1991 FEB	BOL						
1991 MAR	BOL						
1991 APR	BOL						
1991 MAY	BOL						
1991 JUN	BOL						
1991 JUL	BOL						
1991 AUG		BOL	BOL		BOL	BOL	
1991 SEP							
1991 OCT		BOL	BOL	BOL	BOL	BOL	
1991 NOV		BOL	BOL	BOL	BOL	BOL	
1991 DEC		BOL	BOL	BOL	BOL	BOL	
1992 JAN							
1992 FEB							
1992 MAR							
1992 APR							
1992 MAY							
1992 JUN							
1992 JUL							
1992 AUG							

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
CHLOROFORM (UG/L)		DET'M LIMIT = 0.10		GUIDELINE = 350 (A1+)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	100 <T						
1991 MAY	100 <T						
1991 JUN	BDL						
1991 JUL	200 <T						
1991 AUG		BDL					
1991 SEP	BDL		BDL	BDL	BDL	BDL	BDL
1991 OCT		BDL		BDL	BDL	BDL	BDL
1991 NOV	BDL						
1991 DEC	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 OCT	BDL						
1,1,1-TRICHLOROETHANE (UG/L)		DET'M LIMIT = 0.02		GUIDELINE = 200 (D1)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL		BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL		BDL	BDL	BDL	BDL	BDL
1991 OCT	BDL						
1991 NOV	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 OCT	BDL						
1,2-DICHLOROETHANE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 5 (A1)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL		BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL		BDL	BDL	BDL	BDL	BDL
1991 OCT	BDL						
1991 NOV	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 OCT	BDL						
CARBON TETRACHLORIDE (UG/L)		DET'M LIMIT = 0.20		GUIDELINE = 5 (A1)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL						
1991 SEP	BDL						
1991 OCT	BDL						
1991 NOV	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 OCT	BDL						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
VOLATILES							
CHLOROFORM (UG/L)	DET'N LIMIT = 0.10		GUIDELINE = 350 (A1+)				
1991 JAN	-100 <T	.	.	.	.	.	1,200
1991 FEB	BDL	.	.	.	.	.	.200 <T
1991 MAR	-100 <T	.	.	.	.	.	.200 <T
1991 APR	.200 <T	.	.	.	.	.	.500 <T
1991 MAY	.200 <T	.	.	.	.	.	1,400
1991 JUN	-100 <T	.	.	.	.	.	1,500
1991 JUL	.200 <T	.	.	.	.	.	.200 <T
1991 AUG	.100 <T	.	.	BDL	1,000 <T	.	.
1991 SEP	.	.200 <T	BDL	BDL	.400 <T	BDL	.
1991 NOV	.	.200 <T	BDL	BDL	1,400	BDL	.
1992 MAY	BDL	.	.	.	.	BDL	.
11, TRICHLOROETHANE (UG/L)							
	DET'N LIMIT = 0.02		GUIDELINE = 200 (OT)				
1991 JAN	BDL	.	.	.	.	.	BDL
1991 FEB	BDL	.	.	.	.	.	.060 <T
1991 MAR	BDL	.	.	.	.	.	BDL
1991 APR	BDL	.	.	.	.	.	BDL
1991 MAY	BDL	.	.	.	.	.	BDL
1991 JUN	BDL	.	.	.	.	.	BDL
1991 JUL	BDL	.	.	.	.	.	BDL
1991 AUG	.	.	.	.	.	.	BDL
1991 SEP	.240	.720	BDL	6,000	.300	.	.
1991 NOV	.560	.560	BDL	1,700	.140 <T	.060 <T	.
1992 MAY	.560	.520	BDL	.	.420	.060 <T	.
1,2 DICHLOROETHANE (UG/L)							
	DET'N LIMIT = 0.05		GUIDELINE = 5 (A1)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE (UG/L)							
	DET'N LIMIT = 0.20		GUIDELINE = 5 (A1)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES					
CHLOROFORM (UG/L)					
- DET'N LIMIT = 0.10					
GUIDELINE = 350 (A1+)					
1991 JAN	1.600	.200 <T	.600 <T	1.800	
1991 FEB	.800 <T	.200 <T	.200 <T	.800 <T	
1991 MAR	.700 <T	.200 <T	.100 <T	.600 <T	
1991 APR	2.400	.200 <T	.400 <T	1.700	
1991 MAY	1.300	.200 <T	.600 <T	1.300	
1991 JUN	1.400	.200 <T	1.000	1.400	
1991 JUL	3.100	.300 <T	.200 <T	.500 <T	
1991 AUG			.900 <T	1.300	
1991 OCT				1.100	
1992 APR	BOL			.700 <T	
1992 MAY				4.700	
1992 OCT	.300 <T	.400 <T			
1,1,1, TRICHLOROETHANE (UG/L)					
DET'N LIMIT = 0.02					
GUIDELINE = 200 (01)					
1991 JAN	BOL	BOL		BOL	
1991 FEB	BOL	.020 <T		BOL	
1991 MAR	.040 <T	BOL		.040 <T	
1991 APR	BOL	BOL		BOL	
1991 MAY	BOL	BOL		BOL	
1991 JUN	BOL	BOL		BOL	
1991 JUL	BOL	BOL		.060 <T	
1991 AUG		BOL		.300	
1991 OCT				BOL	
1992 APR	BOL			.080 <T	
1992 MAY				BOL	
1992 OCT	BOL			BOL	
1,2 DICHLOROETHANE (UG/L)					
DET'N LIMIT = 0.05					
GUIDELINE = 5 (A1)					
1991 JAN	BOL	BOL		BOL	
1991 FEB	BOL				
1991 MAR					
1991 APR					
1991 MAY					
1991 JUN					
1991 JUL					
1991 AUG					
1991 OCT					
1992 APR					
1992 MAY					
1992 OCT					
CARBON TETRACHLORIDE (UG/L)					
DET'N LIMIT = 0.20					
GUIDELINE = 5 (A1)					
1991 JAN	BOL	BOL		BOL	
1991 FEB	BOL				
1991 MAR					
1991 APR					
1991 MAY					
1991 JUN					
1991 JUL					
1991 AUG					
1991 OCT					
1992 APR					
1992 MAY					
1992 OCT					

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKELO SPRING #6 PRETREATED	ARKELO SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMPHIS WELL PRETREATED
VOLATILES						
1,2-DICHLOROPROPANE (UG/L)						
BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05		GUIDELINE = 5 (D1)				
TRICHLOROETHYLENE (UG/L)						
BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.10		GUIDELINE = 50 (A1)				
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	BDL					
1991 AUG	BDL					BDL
1991 SEP		BDL	BDL	BDL	BDL	
1991 OCT		BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL	BDL	
DICHLOROBROMOMETHANE (UG/L)						
BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05		GUIDELINE = 350 (A1+)				
1991 JAN	BDL					
1991 FEB	BDL					
1991 MAR	BDL					
1991 APR	BDL					
1991 MAY	BDL					
1991 JUN	BDL					
1991 JUL	BDL					
1991 AUG	BDL					BDL
1991 SEP		BDL	BDL	BDL	BDL	
1991 OCT		BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	
1992 AUG		BDL	BDL	BDL	BDL	
1,1,2-TRICHLOROETHANE (UG/L)						
BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05		GUIDELINE = 0.6 (D4)				

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREEK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
1,2-DICHLOROPROPANE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 5 (D1)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHYLENE (UG/L)							
		DET'M LIMIT = 0.10		GUIDELINE = 50 (A1)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL						
1991 SEP	BDL						
1991 OCT	BDL						
1991 NOV	BDL						
1991 DEC	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 SEP	BDL						
1992 OCT	BDL						
DICHLOROBROMOMETHANE (UG/L)							
		DET'M LIMIT = 0.05		GUIDELINE = 350 (A1+)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL						
1991 SEP	BDL						
1991 OCT	BDL						
1991 NOV	BDL						
1991 DEC	BDL						
1992 JAN	BDL						
1992 FEB	BDL						
1992 MAR	BDL						
1992 APR	BDL						
1992 MAY	BDL						
1992 JUN	BDL						
1992 JUL	BDL						
1992 AUG	BDL						
1992 SEP	BDL						
1992 OCT	BDL						
112-TRICHLOROETHANE (UG/L)							
		DET'M LIMIT = 0.05		GUIDELINE = 0.6 (O4)			
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

1111

Page 193

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES					
1,2-DICHLOROPROPANE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 5 (D1)	
BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHYLENE (UG/L)					
DET'M LIMIT = 0.10		GUIDELINE = 50 (A1)			
1991 JAN	BDL	BDL	.100 <T	BDL	BDL
1991 FEB	BDL	BDL	BDL	BDL	BDL
1991 MAR	.100 <T	BDL	BDL	.100 <T	BDL
1991 APR	BDL	BDL	BDL	BDL	BDL
1991 MAY	BDL	BDL	BDL	BDL	BDL
1991 JUN	BDL	BDL	BDL	BDL	BDL
1991 JUL	BDL	BDL	BDL	BDL	BDL
1991 AUG	BDL	BDL	BDL	1.300	BDL
1991 OCT	BDL	BDL	BDL	BDL	BDL
1992 APR	BDL	BDL	BDL	.700 <T	BDL
1992 MAY	BDL	BDL	BDL	BDL	BDL
1992 OCT	BDL	BDL	BDL	BDL	BDL
OICHLOROBROMETHANE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 350 (A1+)	
1991 JAN	3.050	.300 <T	.850	2.150	BDL
1991 FEB	2.700	.400 <T	.550	2.600	BDL
1991 MAR	2.350	.350 <T	.400 <T	2.050	BDL
1991 APR	3.350	.350 <T	.650	3.550	BDL
1991 MAY	3.750	.300 <T	.900	2.550	BDL
1991 JUN	1.800	.300 <T	.900	2.550	BDL
1991 JUL	6.400	.500 <T	.500	1.200	BDL
1991 AUG	BDL	BDL	1.550	.900	BDL
1991 OCT	BDL	BDL	BDL	3.500	BDL
1992 APR	.850	.800	BDL	1.300	BDL
1992 MAY	BDL	BDL	BDL	7.800	BDL
1992 OCT	.550	BDL	BDL	BDL	BDL
112-TRICHLOROETHANE (UG/L)		DET'M LIMIT = 0.05		GUIDELINE = 0.6 (D4)	
BDL	BDL	BDL	BDL	BDL	BDL

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAV	ERAMOSA RIVER RAV	ARKEL SPRING #6 PRETREATED	ARKEL SPRING #7 PRETREATED	ARKEL SPRING #8 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
VOLATILES							
CHLOROIBROMOMETHANE (UG/L)		DET'N LIMIT = 0.10	GUIDELINE = 350 (A1+)				
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL	BDL	BDL		BDL	BDL	BDL
1991 SEP				BDL	BDL		
1991 OCT		BDL	BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	BDL	
1992 AUG	BDL						
TETRACHLOROETHYLENE (UG/L)							
		DET'N LIMIT = 0.05	GUIDELINE = 65 (A5)				
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL	BDL	BDL		BDL	BDL	BDL
1991 SEP				BDL	BDL		
1991 OCT		BDL	BDL	BDL	BDL	BDL	
1991 NOV		BDL	BDL	BDL	BDL	BDL	
1992 MAR		BDL	BDL	BDL	BDL	BDL	
1992 AUG	BDL						

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAM	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOWNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
CHLORODIBROMOMETHANE (UG/L)							
		DET'N LIMIT = 0.10		GUIDELINE = 350 (A1+)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL				BDL		
1991 SEP	BDL			BDL	BDL	BDL	BDL
1991 OCT	BDL			BDL	BDL	BDL	BDL
1991 NOV	BDL				BDL	BDL	BDL
1991 DEC	BDL				BDL	BDL	BDL
1992 JAN	BDL				BDL	BDL	BDL
1992 FEB	BDL				BDL	BDL	BDL
1992 MAR	BDL				BDL	BDL	BDL
1992 APR	BDL				BDL	BDL	BDL
1992 MAY	BDL				BDL	BDL	BDL
1992 JUN	BDL				BDL	BDL	BDL
1992 JUL	BDL				BDL	BDL	BDL
1992 AUG	BDL				BDL	BDL	BDL
1992 SEP	BDL				BDL	BDL	BDL
1992 OCT	BDL				BDL	BDL	BDL
TETRACHLOROETHYLENE (UG/L)							
		DET'N LIMIT = 0.05		GUIDELINE = 65 (A5)			
1991 JAN	BDL						
1991 FEB	BDL						
1991 MAR	BDL						
1991 APR	BDL						
1991 MAY	BDL						
1991 JUN	BDL						
1991 JUL	BDL						
1991 AUG	BDL				BDL		
1991 SEP	BDL			BDL	BDL	BDL	BDL
1991 OCT	BDL			BDL	BDL	BDL	BDL
1991 NOV	BDL				BDL	BDL	BDL
1991 DEC	BDL				BDL	BDL	BDL
1992 JAN	BDL				BDL	BDL	BDL
1992 FEB	BDL				BDL	BDL	BDL
1992 MAR	BDL				BDL	BDL	BDL
1992 APR	BDL				BDL	BDL	BDL
1992 MAY	BDL				BDL	BDL	BDL
1992 JUN	BDL				BDL	BDL	BDL
1992 JUL	BDL				BDL	BDL	BDL
1992 AUG	BDL				BDL	BDL	BDL
1992 SEP	BDL				BDL	BDL	BDL
1992 OCT	BDL				BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAN WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
VOLATILES						
CHLORODIBROMOMETHANE (UG/L)						
		DET'N LIMIT = 0.10		GUIDELINE = 350 (A1+)		
1991 JAN	BDL					2.600
1991 FEB	BDL					2.200
1991 MAR	BDL					1.600
1991 APR	BDL					1.900
1991 MAY	BDL					2.000
1991 JUN	BDL					.700 <T
1991 JUL	BDL					1.500
1991 AUG	BDL			BDL	BDL	
1991 SEP		BDL		BDL	BDL	
1991 NOV		BDL		BDL	BDL	
1992 MAY	BDL	BDL		BDL	BDL	
TETRACHLOROETHYLENE (UG/L)						
		DET'N LIMIT = 0.05		GUIDELINE = 65 (A5)		
1991 JAN	BDL					BDL
1991 FEB	BDL					BDL
1991 MAR	BDL					BDL
1991 APR	BDL					BDL
1991 MAY	BDL					BDL
1991 JUN	BDL					BDL
1991 JUL	BDL					BDL
1991 AUG	BDL			1.500	BDL	
1991 SEP		.600				.050 <T
1991 NOV		.700		3.600	BDL	
1992 MAY	BDL	.800		BDL	BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

VOLATILES		DEFIN LIMIT = 0.10		GUIDELINE = 350 (A1+)	
PALISLEY WELL TREATED	U OF G. WELL TREATED	DIST. SYSTEM FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
CHLORODIBROMOMETHANE (UG/L)					
1991 JAN	4,800	.600 <T	1,200	3,700	.
1991 FEB	6,300	.700 <T	1,300	6,000	.
1991 MAR	4,900	.400 <T	.900 <T	4,600	.
1991 APR	6,400	.700 <T	1,000 <T	6,100	.
1991 MAY	6,200	.400 <T	1,200	5,900	.
1991 JUN	1,800	BDL	.500 <T	3,600	.
1991 JUL	9,300	1,100	1,100	2,100	.
1991 AUG	.	1,900	.	1,100	.
1991 OCT	.	.	.	7,200	.
1992 APR	3,900	2,400	.	3,000	.
1992 MAY	.	.	.	.	.
1992 OCT	.900 <T	.	.	10,000	.
TETRACHLOROETHYLENE (UG/L)					
		DEFIN LIMIT = 0.05		GUIDELINE = 65 (A5)	
1991 JAN	BDL	BDL	BDL	BDL	.
1991 FEB	BDL	BDL	.	BDL	.
1991 MAR	BDL	BDL	.	BDL	.
1991 APR	BDL	BDL	.	BDL	.
1991 MAY	BDL	BDL	.	BDL	.
1991 JUN	BDL	BDL	.	BDL	.
1991 JUL	BDL	BDL	.	BDL	.
1991 AUG	.	BDL	.	.050 <T	.
1991 OCT	.	.	.	BDL	.
1992 APR	BDL	.	.	BDL	.
1992 MAY	.	.	.	BDL	.
1992 OCT	BDL	BDL	.	BDL	.

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

WOODS PUMP RAW	ERANOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	ARKEI SPRING #8 PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED
VOLATILES						
BROMOFORM (UG/L)		DET'N LIMIT = 0.20				
		GUIDELINE = 350 (A1+)				
1991 JAN	BDL	-	-	-	-	-
1991 FEB	BDL	-	-	-	-	-
1991 MAR	BDL	-	-	-	-	-
1991 APR	BDL	-	-	-	-	-
1991 MAY	BDL	-	-	-	-	-
1991 JUN	BDL	-	-	-	-	-
1991 JUL	BDL	-	-	-	-	-
1991 AUG	BDL	-	-	-	-	BDL
1991 SEP	-	-	-	-	-	-
1991 OCT	-	-	-	-	-	-
1991 NOV	-	-	-	-	-	-
1992 MAR	-	-	-	-	-	-
1992 AUG	-	-	-	-	-	-
1122-TETRACHLOROETHANE (UG/L)		DET'N LIMIT = 0.05				
		GUIDELINE = 0.17 (D4)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE (UG/L)		DET'N LIMIT = 0.100				
		GUIDELINE = 2 (D1)				
41 SAMPLES	BDL	BDL	BDL	BDL	BDL	-
C12-DICHLOROETHYLENE (UG/L)		DET'N LIMIT = 0.100				
		GUIDELINE = 70 (D1)				
1992 MAR	-	BDL	BDL	BDL	BDL	-
1992 AUG	BDL	BDL	BDL	BDL	BDL	-
CHLOROBENZENE (UG/L)		DET'N LIMIT = 0.10				
		GUIDELINE = 1510 (D3)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL
1,4-DICHLOROBENZENE (UG/L)		DET'N LIMIT = 0.10				
		GUIDELINE = 5 (A1)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE (UG/L)		DET'N LIMIT = 0.10				
		GUIDELINE = 3750 (D3)				
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCRECK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
BROMOFORM (UG/L)							
DET'M LIMIT = 0.20 GUIDELINE = 350 (A1+)							
1991 JAN		BDL					
1991 FEB		BDL					
1991 MAR		BDL					
1991 APR		BDL					
1991 MAY		BDL					
1991 JUN		BDL					
1991 JUL		BDL					
1991 AUG		BDL					
1991 SEP		BDL	BDL	BDL	BDL	BDL	BDL
1991 OCT		BDL	BDL	BDL	.800 <T	BDL	.800 <T
1991 NOV		BDL					
1992 MAR		BDL	BDL	BDL		BDL	BDL
1992 APR		BDL					
1992 AUG		BDL					
1992 OCT		BDL	BDL	BDL		BDL	
1122-TETRACHLOROETHANE (UG/L)							
DET'M LIMIT = 0.05 GUIDELINE = 0.17 (D4)							
BDL		BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE (UG/L)							
DET'M LIMIT = 0.100 GUIDELINE = 2 (D1)							
BDL		BDL	BDL	BDL	BDL	BDL	BDL
C12-DICHLOROETHYLENE (UG/L)							
DET'M LIMIT = 0.100 GUIDELINE = 70 (D1)							
BDL		BDL	BDL	BDL	BDL	.500 <T	BDL
1992 MAR		BDL	BDL	BDL	BDL		
1992 APR		BDL	BDL	BDL	BDL	.400 <T	
1992 AUG		BDL	BDL	BDL	BDL		
1992 OCT		BDL	BDL	BDL	BDL		
CHLOROBENZENE (UG/L)							
DET'M LIMIT = 0.10 GUIDELINE = 1510 (D3)							
BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,4-DICHLOROBENZENE (UG/L)							
DET'M LIMIT = 0.10 GUIDELINE = 5 (A1)							
BDL		BDL	BDL	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE (UG/L)							
DET'M LIMIT = 0.10 GUIDELINE = 3750 (D3)							
BDL		BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

U OF G WELL RAW	DEAM WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SMALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
VOLATILES							
BROMOFORM (UG/L)	DET'N LIMIT = 0.20			GUIDELINE = 350 (A1+)			
1991 JAN	BDL	-	-	-	-	-	1,600 <T
1991 FEB	BDL	-	-	-	-	-	4,800
1991 MAR	BDL	-	-	-	-	-	2,400
1991 APR	BDL	-	-	-	-	-	1,800 <T
1991 MAY	BDL	-	-	-	-	-	1,600 <T
1991 JUN	BDL	-	-	-	-	-	BDL
1991 JUL	BDL	-	-	-	-	-	2,000 <T
1991 AUG	BDL	-	-	-	BDL	-	-
1991 SEP	-	BDL	BDL	BDL	BDL	BDL	-
1991 NOV	-	BDL	BDL	BDL	BDL	BDL	-
1992 MAY	BDL	BDL	BDL	BDL	BDL	BDL	-
1122-TETRACHLOROETHANE (UG/L)							
DET'N LIMIT = 0.05			GUIDELINE = 0.17 (D4)				
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE (UG/L)							
DET'N LIMIT = 0.100			GUIDELINE = 2 (D1)				
BDL	BDL	BDL	BDL	BDL	BDL	BDL	-
C12-DICHLOROETHYLENE (UG/L)							
DET'N LIMIT = 0.100			GUIDELINE = 70 (D1)				
1991 NOV	BDL	.800 <T	.100 <T	1,700	BDL	1,700	-
1992 MAY	BDL	.700 <T	.100 <T	-	.100 <T	1,500	-
CHLOROBENZENE (UG/L)							
DET'N LIMIT = 0.10			GUIDELINE = 1510 (D3)				
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-DICHLOROBENZENE (UG/L)							
DET'N LIMIT = 0.10			GUIDELINE = 5 (A1)				
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE (UG/L)							
DET'N LIMIT = 0.10			GUIDELINE = 3750 (D3)				
BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD N FREE FLOW	DIST. SYSTEM IMPERIAL RD N STANDING
VOLATILES					
BROMOFORM (UG/L)		DET'N LIMIT = 0.20		GUIDELINE = 350 (A1+)	
1991 JAN	2,200	.200 <T		2,000 <T	
1991 FEB	5,600	.800 <T	2,600	6,400	
1991 MAR	4,200	.400 <T	1,200 <T	4,200	
1991 APR	2,200	.800 <T	1,000 <T	2,600	
1991 MAY	3,600	.200 <T	.600 <T	3,200	
1991 JUN	.800 <T	BDL		2,200	
1991 JUL	4,600	1,600 <T		1,800 <T	
1991 AUG		1,400 <T		.400 <T	
1991 OCT				5,600	
1992 APR	9,200			3,000	
1992 MAY		4,800			
1992 OCT	.800 <T			2,800	
1122-TECHLOROETHANE (UG/L)					
		DET'N LIMIT = 0.05		GUIDELINE = 0.17 (D4)	
BDL	BDL	BDL		BDL	
VINYL CHLORIDE (UG/L)					
		DET'N LIMIT = 0.100		GUIDELINE = 2 (D1)	
BDL	BDL			BDL	
C12-DICHLOROETHYLENE (UG/L)					
		DET'N LIMIT = 0.100		GUIDELINE = 70 (D1)	
1992 APR	BDL			.100 <T	
1992 MAY					
1992 OCT	BDL			BDL	
CHLOROBENZENE (UG/L)					
		DET'N LIMIT = 0.10		GUIDELINE = 1510 (D3)	
BDL	BDL	BDL		BDL	
1,4-DICHLOROBENZENE (UG/L)					
		DET'N LIMIT = 0.10		GUIDELINE = 5 (A1)	
BDL	BDL	BDL		BDL	
1,3-DICHLOROBENZENE (UG/L)					
		DET'N LIMIT = 0.10		GUIDELINE = 3750 (D3)	
BDL	BDL	BDL		BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 QUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DOANEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
VOLATILES							
1,2-DICHLOROBENZENE (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 200 (A1)							
ETHYLENE DIBROMIDE (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 50 (D1)							
TOTL TRIHALOMETHANES (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GUIDELINE = 350 (A1)							
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 FEB	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 APR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUN	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 JUL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 OCT	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 MAR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 APR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 OCT	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

1) OF G WELL /AW	DEAN WELL PRETREATED	EDINBURGH WELL PRETREATED	EMMA ST WELL PRETREATED	SACCO WELL PRETREATED	SHALLFIELD WELL PRETREATED	WATER ST WELL PRETREATED	WOODS PUMP TREATED
VOLATILES							
1,2-DICHLOROBENZENE (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05 GUIDELINE = 200 (A1)							
ETHYLENE DIBROMIDE (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.05 GUIDELINE = 50 (D1)							
TOTL TRIHALOMETHANES (UG/L)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DET'N LIMIT = 0.50 GUIDELINE = 350 (A1)							
1991 JAN	BDL	BDL	BDL	BDL	BDL	BDL	7.000
1991 FEB	BDL	BDL	BDL	BDL	BDL	BDL	7.850
1991 MAR	BDL	BDL	BDL	BDL	BDL	BDL	4.650 <T
1991 APR	BDL	BDL	BDL	BDL	BDL	BDL	5.300
1991 MAY	BDL	BDL	BDL	BDL	BDL	BDL	6.050
1991 JUN	BDL	BDL	BDL	BDL	BDL	BDL	3.500 <T
1991 JUL	BDL	BDL	BDL	BDL	BDL	BDL	4.350 <T
1991 AUG	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 SEP	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1991 NOV	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1992 MAY	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

PAISLEY WELL TREATED	U OF G WELL TREATED	DIST. SYSTEM VICTORIA RD FREE FLOW	DIST. SYSTEM VICTORIA RD STANDING	DIST. SYSTEM IMPERIAL RD FREE FLOW	DIST. SYSTEM IMPERIAL RD STANDING
VOLATILES					
1,2-DICHLOROBENZENE (UG/L)					
BDL	BDL	DET'N LIMIT = 0.05	GUIDELINE = 200 (A1)	BDL	
ETHYLENE DIBROMIDE (UG/L)					
BDL	BDL	DET'N LIMIT = 0.05	GUIDELINE = 50 (D1)	BDL	
TOTAL TRIHALOMETHANES (UG/L)					
BDL	BDL	DET'N LIMIT = 0.50	GUIDELINE = 350 (A1)	BDL	
1991 JAN	11,550	1,350 <T	2,850 <T	9,700	
1991 FEB	15,300	2,200 <T	4,700 <T	15,700	
1991 MAR	15,300	1,350 <T	2,650 <T	11,450	
1991 APR	15,300	1,950 <T	2,950 <T	14,000	
1991 MAY	12,750	1,000 <T	3,350 <T	13,550	
1991 JUN	5,800	500 <T	2,400 <T	9,700	
1991 JUL	23,400	3,500 <T	3,200 <T	5,600	
1991 AUG			5,350	3,700 <T	
1991 OCT		BDL		17,400	
1992 APR	13,950			8,000	
1992 MAY					
1992 OCT	2,550 <T			25,300	

TABLE 4 DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY						
WOODS PUMP RAW	ERAMOSA RIVER RAW	ARKEI SPRING #6 PRETREATED	ARKEI SPRING #7 PRETREATED	CARTER WELL PRETREATED	CLYTHE WELL PRETREATED	MEMBRO WELL PRETREATED

RADIONUCLIDES						
COBALT 60 (BQ/L)		DET'N LIMIT = 0.70	GUIDELINE = N/A			
6 SAMPLES		BDL	BDL	BDL	BDL	
CESIUM 134 (BQ/L)		DET'N LIMIT = 0.70	GUIDELINE = N/A			
6 SAMPLES		BDL	BDL	BDL	BDL	
CESIUM 137 (BQ/L)		DET'N LIMIT = 0.70	GUIDELINE = 50 (A1)			
6 SAMPLES		BDL	BDL	BDL	BDL	
GROSS ALPHA COUNT (BQ/L)		DET'N LIMIT = 0.04	GUIDELINE = 0.55 (D1)			
1992 MAR		.270	.060	.100	.130	.140
GROSS BETA COUNT (BQ/L)		DET'N LIMIT = 0.04	GUIDELINE = N/A			
1992 MAR		.190	.050	.120	.110	.130
TRITIUM (BQ/L)		DET'N LIMIT = 7.00	GUIDELINE = 40000 (A1)			
6 SAMPLES		BDL	BDL	BDL	BDL	
IODINE 131 (BQ/L)		DET'N LIMIT = 0.70	GUIDELINE = 10 (A1)			
6 SAMPLES		BDL	BDL	BDL	BDL	

TABLE 4
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992 GUELPH WELL SUPPLY

SILVERCREK WELL PRETREATED	PAISLEY WELL RAW	BURKES WELL PRETREATED	CALICO WELL PRETREATED	DONNEY WELL PRETREATED	HELMAR WELL PRETREATED	PARK WELL PRETREATED	QUEENSDALE PRETREATED
RADIONUCLIDES							
COBALT 60 (BQ/L)		DET'M LIMIT = 0.70		GUIDELINE = N/A			
BOL							
CESIUM 134 (BQ/L)		DET'M LIMIT = 0.70		GUIDELINE = N/A			
BOL							
CESIUM 137 (BQ/L)		DET'M LIMIT = 0.70		GUIDELINE = 50 (A1)			
BOL							
GROSS ALPHA COUNT (BQ/L)		DET'M LIMIT = 0.04		GUIDELINE = 0.55 (01)			
1992 MAR							
GROSS BETA COUNT (BQ/L)		DET'M LIMIT = 0.04		GUIDELINE = N/A			
1992 MAR							
TRITIUM (BQ/L)		DET'M LIMIT = 7.00		GUIDELINE = 40000 (A1)			
BOL							
IODINE 131 (BQ/L)		DET'M LIMIT = 0.70		GUIDELINE = 10 (A1)			
BOL							

TABLE 5
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
BACTERIOLOGICAL			
FECAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	0 (A1)
STANDARD PLATE COUNT MEMBRANE FILT.	CT/ML	0	500/ML (A3)
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100ML (A1)
CHEMISTRY (FLD)			
FIELD COMBINED CHLORINE RESIDUAL	MG/L	0	N/A
FIELD TOTAL CHLORINE RESIDUAL	MG/L	0	N/A
FIELD FREE CHLORINE RESIDUAL	MG/L	0	N/A
FIELD PH	DMNSLESS	N/A	6.5-8.5 (A4)
FIELD TEMPERATURE	DEG.C	N/A	15.0 (A3)
FIELD TURBIDITY	FTU	N/A	1.0 (A1)
CHEMISTRY (LAB)			
ALKALINITY	MG/L	0.20	30-500 (A4)
AMMONIUM TOTAL	MG/L	0.002	0.05 (F2)
CALCIUM	MG/L	0.20	100.0 (F2)
CHLORIDE	MG/L	0.20	250.0 (A3)
COLOUR	TCU	0.50	5.0 (A3)
CONDUCTIVITY	UMHO/CM	1.00	400.0 (F2)
CYANIDE	MG/L	0.001	0.2 (A1)
DISSOLVED ORGANIC CARBON	MG/L	0.10	5.0 (A3)
FLUORIDE	MG/L	0.01	1.5* (A1)
HARDNESS	MG/L	0.50	80-100 (A4)
IONCAL	DMNSLESS	N/A	N/A
LANGELIERS INDEX	DMNSLESS	N/A	N/A
MAGNESIUM	MG/L	0.10	30.0 (F2)
NITRATES (TOTAL)	MG/L	0.005	10.0 (A1)
NITRITE	MG/L	0.001	1.0 (A1)
NITROGEN TOTAL KJELDAHL	MG/L	0.02	N/A
PH	DMNSLESS	N/A	6.5-8.5 (A4)
PHOSPHORUS FIL REACT	MG/L	0.0005	N/A
PHOSPHORUS TOTAL	MG/L	0.002	0.4 (F2)
POTASSIUM	MG/L	0.010	10.0 (F2)
RESIDUE FILTRATE (CALCULATED TDS)	MG/L	N/A	500.0 (A3)
SODIUM	MG/L	0.20	200.0 (A4)
SULPHATE	MG/L	0.20	500.0 (A4)
TURBIDITY	FTU	0.05	1.0 (A1)
* The Maximum Acceptable Concentration (MAC) for <u>naturally occurring fluoride</u> in drinking water is 2.4 mg/L.			
CHLOROAROMATICS			
1,2,3-TRICHLOROBENZENE	NG/L	5.0	N/A
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.0	N/A
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.0	N/A
1,2,4-TRICHLOROBENZENE	NG/L	5.0	10000 (1)
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.0	38000 (D4)
1,3,5-TRICHLOROBENZENE	NG/L	5.0	N/A
2,3,6-TRICHLOROTOLUENE	NG/L	5.0	N/A
2,4,5-TRICHLOROTOLUENE	NG/L	5.0	N/A
2,6A-TRICHLOROTOLUENE	NG/L	5.0	N/A
HEXACHLOROBENZENE (HCB)	NG/L	1.0	10 (C1)
HEXACHLOROBUTADIENE	NG/L	1.0	450 (D4)
HEXACHLOROETHANE	NG/L	1.0	1900 (D4)
OCTACHLOROSTYRENE	NG/L	1.0	N/A
PENTACHLOROBENZENE	NG/L	1.0	74000 (D4)
CHLOROPHENOLS			
2,3,4-TRICHLOROPHENOL	NG/L	100.0	N/A
2,3,4,5-TETRACHLOROPHENOL	NG/L	20.0	N/A
2,3,5,6-TETRACHLOROPHENOL	NG/L	10.0	N/A

TABLE 5
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
2,4,5-TRICHLOROPHENOL	NG/L	100.0	2600000 (D4)
2,4,6-TRICHLOROPHENOL	NG/L	20.0	5000 (A1)
PENTACHLOROPHENOL	NG/L	10.0	60000 (A1)
METALS			
ALUMINUM	UG/L	0.10	100 (A4)
ANTIMONY	UG/L	0.05	146 (D4)
ARSENIC	UG/L	0.10	25 (A1)
BARIUM	UG/L	0.05	1000 (A2)
BERYLLIUM	UG/L	0.05	6800 (D4)
BORON	UG/L	2.00	5000 (A1)
CADMIUM	UG/L	0.05	5 (A1)
CHROMIUM	UG/L	0.50	50 (A1)
COBALT	UG/L	0.02	N/A
COPPER	UG/L	0.50	1000 (A3)
IRON	UG/L	6.00	300 (A3)
LEAD	UG/L	0.05	10 (A1)
MANGANESE	UG/L	0.05	50 (A3)
MERCURY	UG/L	0.02	1 (A1)
MOLYBDENUM	UG/L	0.05	N/A
NICKEL	UG/L	0.20	350 (D3)
SELENIUM	UG/L	1.00	10 (A1)
SILVER	UG/L	0.05	N/A
STRONTIUM	UG/L	0.10	N/A
THALLIUM	UG/L	0.05	13 (D4)
TITANIUM	UG/L	0.50	N/A
URANIUM	UG/L	0.05	100 (A1)
VANADIUM	UG/L	0.05	N/A
ZINC	UG/L	0.20	5000 (A3)
POLYNUCLEAR AROMATIC HYDROCARBONS			
ANTHRACENE	NG/L	1.0	N/A
BENZO(A) ANTHRACENE	NG/L	20.0	N/A
BENZO(A) PYRENE	NG/L	5.0	10 (A1)
BENZO(B) CHRYSENE	NG/L	2.0	N/A
BENZO(B) FLUORANTHENE	NG/L	10.0	N/A
BENZO(E) PYRENE	NG/L	50.0	N/A
BENZO(G,H,I) PERYLENE	NG/L	20.0	N/A
BENZO(K) FLUORANTHENE	NG/L	1.0	N/A
CHRYSENE	NG/L	50.0	N/A
CORONENE	NG/L	10.0	N/A
DIBENZO(A,H) ANTHRACENE	NG/L	10.0	N/A
DIMETHYL BENZO(A) ANTHRACENE	NG/L	5.0	N/A
FLUORANTHENE	NG/L	20.0	42000 (D4)
INDENO(1,2,3-C,D) PYRENE	NG/L	20.0	N/A
PERYLENE	NG/L	10.0	N/A
PHENANTHRENE	NG/L	10.0	N/A
PYRENE	NG/L	20.0	N/A
PESTICIDES & PCB			
ALACHLOR (LASSO)	NG/L	500.0	5000 (A2)
ALDRIN	NG/L	1.0	700 (A1)
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	700 (G)
ALPHA CHLORDANE	NG/L	2.0	7000 (A1)
AMETRINE	NG/L	50.0	300000 (D3)
ATRAZONE	NG/L	50.0	N/A
DESETHYL ATRAZINE	NG/L	50.0	60000 (A2)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	200.0	60000 (A2)
CYANAZINE (BLADEX)	NG/L	1.0	300 (G)
DIELDRIN	NG/L	100.0	10000 (A2)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0	700 (A1)
ENDOSULFAN 2 (THIODAN II)	NG/L	2.0	74000 (D4)
ENDOSULFAN SULPHATE (THIODAN SULPHATE)	NG/L	5.0	74000 (D4)
			N/A

TABLE 5
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
ENDRIN	NG/L	5.0	1600 (D3)
GAMMA CHLORDANE	NG/L	2.0	7000 (A1)
HEPTACHLOR	NG/L	1.0	3000 (A1)
HEPTACHLOR EPOXIDE	NG/L	1.0	3000 (A1)
HEXACHLOROCYCLOPENTADIENE	NG/L	5.0	206000 (D4)
LINDANE (GAMMA BHC)	NG/L	1.0	4000 (A1)
METHOXYCHLOR	NG/L	5.0	900000 (A1)
METOLACHLOR	NG/L	500.0	50000 (A2)
METRIBUZIN (SENCOR)	NG/L	100.0	80000 (A1)
MIREX	NG/L	5.0	N/A
P,P-DDD	NG/L	5.0	30000 (A1)
O,P-DDT	NG/L	5.0	30000 (A1)
P,P-DDT	NG/L	5.0	30000 (A1)
P,P-DDE	NG/L	1.0	30000 (A1)
OXYCHLORDANE	NG/L	2.0	N/A
PCB	NG/L	20.0	3000 (A2)
PROMETONE	NG/L	50.0	52500 (D3)
PROMETRYNE	NG/L	50.0	1000 (A2)
PROPACINE	NG/L	50.0	700000 (D3)
SIMAZINE	NG/L	50.0	10000 (A2)
DESETHYL SIMAZINE	NG/L	200.0	10000 (A2)
TOXAPHENE	NG/L	500.0	5000 (A1)
PHENOLICS			
PHENOLICS (UNFILTERED REACTIVE)	UG/L	0.2	N/A
SPECIFIC PESTICIDES			
2,4-D PROPIONIC ACID	NG/L	100.0	N/A
2,4,5-TRICHLOROPHENOXY ACETIC ACID	NG/L	50.0	280000 (A1)
2,4-DICHLOROBUTYRIC ACID (2,4-D)	NG/L	100.0	100000 (A1)
2,4-DICHLOROPHENOXYBUTYRIC ACID (2,4-DB)	NG/L	200.0	N/A
2,4,5-TP (SILVEX)	NG/L	20.0	10000 (A1)
BUTYLATE (SUTAN)	NG/L	2000.0	245000 (D3)
CARBARYL (SEVIN)	NG/L	200.0	90000 (A1)
CARBOFURAN	NG/L	2000.0	90000 (A1)
CHLOROPHOS (CIPC)	NG/L	2000.0	350000 (G)
CHLORPYRIFOS (DURSABAN)	NG/L	20.0	N/A
DIALLATE	NG/L	2000.0	N/A
DIAZINON	NG/L	20.0	20000 (A1)
DICAMBA	NG/L	50.0	120000 (A1)
DICHLOROVOS	NG/L	20.0	N/A
EPTAM	NG/L	2000.0	N/A
ETHION	NG/L	20.0	35000 (G)
IPC	NG/L	2000.0	N/A
MALATHION	NG/L	20.0	190000 (A1)
METHYL PARATHION	NG/L	50.0	9000 (D3)
METHYLTRITHION	NG/L	20.0	N/A
MEVINPHOS	NG/L	20.0	N/A
PARATHION	NG/L	20.0	50000 (A1)
PHORATE (THIMET)	NG/L	20.0	2000 (A2)
PICHLORAM	NG/L	100.0	190000 (A2)
PROPOXUR (BAYGON)	NG/L	2000.0	140000 (D3)
RELDAN	NG/L	20.0	N/A
RONNEL	NG/L	20.0	N/A
VOLATILES			
1,1-DICHLOROETHANE	UG/L	0.10	N/A
1,1-DICHLOROETHYLENE	UG/L	0.1	7 (D1)
1,2-DICHLOROBENZENE	UG/L	0.05	200 (A1)
1,2-DICHLOROETHANE	UG/L	0.05	5 (A1)
1,2-DICHLOROPROPANE	UG/L	0.05	5 (D1)
1,3-DICHLOROBENZENE	UG/L	0.10	3750 (D3)
1,4-DICHLOROBENZENE	UG/L	0.10	5 (A1)
1,1,1-TRICHLOROETHANE	UG/L	0.02	200 (D1)
1,1,2-TRICHLOROETHANE	UG/L	0.05	0.6 (D4)
1,1,2,2-TETRACHLOROETHANE	UG/L	0.05	0.17 (D4)

TABLE 5
DRINKING WATER SURVEILLANCE PROGRAM 1991 AND 1992

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
BENZENE	UG/L	0.05	5 (A1)
BROMOFORM	UG/L	0.20	350 (A1+)
CARBON TETRACHLORIDE	UG/L	0.20	5 (A1)
CHLOROBENZENE	UG/L	0.10	1510 (D3)
CHLORODIBROMOMETHANE	UG/L	0.10	350 (A1+)
CHLOROFORM	UG/L	0.10	350 (A1+)
CIS 1,2-DICHLOROETHYLENE	UG/L	0.10	70 (D1)
DICHLOROBROMOMETHANE	UG/L	0.05	350 (A1+)
ETHYLENE DIBROMIDE	UG/L	0.05	50 (D1)
ETHYLBENZENE	UG/L	0.05	2.4 (A3)
M-XYLENE	UG/L	0.10	300 (A3*)
METHYLENE CHLORIDE	UG/L	0.50	50 (A1)
O-XYLENE	UG/L	0.05	300 (A3*)
P-XYLENE	UG/L	0.10	300 (A3*)
STYRENE	UG/L	0.05	100 (D1)
TETRACHLOROETHYLENE	UG/L	0.05	65 (A5)
TRANS 1,2-DICHLOROETHYLENE	UG/L	0.10	70 (D1)
TOLUENE	UG/L	0.05	24 (A3)
TOTAL TRINHALOMETHANES	UG/L	0.50	350 (A1)
TRICHLOROETHYLENE	UG/L	0.10	50 (A1)
VINYL CHLORIDE	UG/L	0.10	2 (D1)
RADIONUCLIDES			
TRITIUM	BQ/L	7.0	40000 (A1)
GROSS ALPHA COUNT	BQ/L	0.04	0.55# (D1)
GROSS BETA COUNT	BQ/L	0.04	N/A
COBALT 60	BQ/L	0.70	N/A
CESIUM 134	BQ/L	0.70	N/A
CESIUM 137	BQ/L	0.70	50 (A1)
IODINE 131	BQ/L	0.70	10 (A1)

Equal to 15.0 Picocuries/litre

DRINKING WATER SURVEILLANCE PROGRAM
PROGRAM DESCRIPTION

The Drinking Water Surveillance Program (DWSP) for Ontario monitors drinking water quality at municipal water supply systems. The DWSP Database Management System provides a computerized drinking water quality information system for the supplies monitored. The objectives of the program are to provide:

- immediate, reliable, current information on drinking water quality;
- a flagging mechanism for guideline exceedance;
- a definition of contaminant levels and trends;
- a comprehensive background for remedial action;
- a framework for assessment of new contaminants; and
- an indication of treatment efficiency of plant processes.

PROGRAM

The DWSP officially began in April 1986 and is designed to eventually include all municipal water supplies in Ontario. In 1992, 109 systems were being monitored. Water supply locations have been prioritized for surveillance based primarily on criteria such as population density, probability of contamination and geographical location.

An ongoing assessment of future monitoring requirements at each location will be made. Monitoring will continue at the initial locations at an appropriate level and further locations will be phased into the program as resources permit.

A major goal of the program is to collect valid water quality data in context with plant operational characteristics at the time of sampling. As soon as sufficient data have been accumulated and analyzed, both the frequency of sampling and the range of parameters may be adjusted accordingly.

Assessments are carried out at all locations prior to initial sampling, in order to acquire complete plant process and distribution system details and to designate (and retrofit if necessary) all sampling systems and locations. This ensures that the sampled water is a reflection of the water itself.

Samples are taken of raw (ambient water) and treated water at the treatment plant and of consumer's tap water in the distribution system. In order to determine possible effects of distribution on water quality, both standing and free flow water in old and new sections of the distribution system are sampled. Sampling is carried out by operational personnel who have been trained in applicable procedures.

Comprehensive standardized procedures and field test kits are supplied to sampling personnel. This ensures that samples are taken and handled according to standard protocols and that field testing will supply reliable data. All field and laboratory analyses are carried out using "approved documented procedures". Most laboratory analyses are carried out by the Ministry of Environment and Energy (MOEE), Laboratory Service Branch. Radionuclides are analyzed by the Ministry of Labour.

DATA REPORTING MECHANISM

When the analytical results are transferred from the MOEE laboratory into the DWSP system, printouts of the completed analyses are sent to the MOEE District Officer, the appropriate operational staff and are also retained by the DWSP unit.

PROGRAM INPUTS AND OUTPUTS

There are four major inputs and four major outputs in the program.

Program Input - Plant and Distribution System Description

The system description includes plant specific non-analytical information acquired through a questionnaire and an initial plant visit. During the initial assessment of the plant and distribution system, questionnaire content is verified and missing information added. It is intended that all data be kept current with scheduled annual updates.

The Plant and Distribution System Description consists of the following seven components:

1. PROCESS COMPONENT INVENTORY

All physical and chemical processes to which the water is subjected, from the intake pipe to the consumers' tap (where possible), are documented. These include: process type, general description of physical structures, material types, sizes, and retention time for each process within the plant. The processes may be as simple as transmission or as complex as carbon adsorption.

2. TREATMENT CHEMICALS

Chemicals used in the treatment processes, their function, application point, supplier and brand-name are recorded. Chemical dosages applied on the day of sampling are recorded in DWSP.

3. PROCESS CONTROL MEASUREMENTS

Documentation of in-plant monitoring of process parameters (eg. turbidity, chlorine residuals, pH, aluminum residuals) including methods used, monitoring locations and frequency is contained in this section. Except for the recorded Field Data, in-plant monitoring results are not retained in DWSP but are retained by the water treatment plant personnel.

4. DESIGN FLOW AND RETENTION TIME

Hydraulic capacity, designed and actual, is noted here. Retention time (the time that a block of water is retained in the plant) is also noted. Maximum, minimum and average flow, as well as a record of the flow rate on the day of sampling, are recorded in DWSP.

5. DISTRIBUTION SYSTEM DESCRIPTION

This area includes the storage and transmission characteristics of the distribution system after the water leaves the plant.

6. SAMPLING SYSTEM

Each plant is assessed for its adequacy in terms of the sampling of bacteriological, organic and inorganic parameters. Prime considerations in the assessment and design of the sampling system are:

- i/ the sample is an accurate representation of the actual water condition, eg. raw water has had no chemical treatment;
- ii/ the water being sampled is not being modified by the sampling system;
- iii/ the sample tap must be in a clean area of the plant, preferably a lab area; and
- iv/ the sample lines must be organically inert (no plastic, ideally stainless steel).

It is imperative that the sampled water be a reflection not of the sampling system but of the water itself.

The sampling system documentation includes: origin of the water; date sampling was initiated; size, length and material type (intake, discharge and tap); pump characteristics (model, type, capacity); and flow rate.

7. PERSONNEL

This section contains the names, addresses and phone numbers of current plant management and operational staff, distribution system management and operational staff, Medical Officer of Health and appropriate MOEE personnel associated with the plant.

Program Input - Field Data

The second major input to DWSP is field data. Field data is collected at the plant and from the distribution system sites on the day of sampling. Field data consists of general operating conditions and the results of testing for field parameters. General operating conditions include chemicals used, dosages, flow and retention time on the day of sampling, as well as, monthly maximum, minimum and average flows. Field parameters include turbidity, chlorine residuals (free, combined and total), temperature and pH. These parameters are analyzed according to standardized DWSP protocols to allow for interplant comparison.

Program Input - Laboratory Analytical Data

The third major input to DWSP is Laboratory Analytical Data. Samples gathered from the raw, treated and distribution sampling sites are analyzed for the presence of approximately 180 parameters at a frequency of two to twelve times per year. Sixty-five percent of the parameters are organic. Parameters measured may have health or aesthetic implications when present in drinking water. Many of the parameters may be used in the treatment process or may be treatment by-products. Due to the nature of certain analytical instruments, parameters may be measured in a "scan" producing some results for parameters that are not on the DWSP priority list, but which may be of interest. The majority of parameters are measured on a routine basis. Those that are technically more difficult and/or costly to analyze, however, are done less frequently. These include Specific Pesticides and Chlorophenols.

Although the parameter list is extensive, additional parameters with the potential to cause health or aesthetic related problems may be added provided reliable analytical and sampling methods exist.

All laboratory generated data is derived from standardized, documented analytical protocols. The analytical method is an integral part of the data and as methods change, notation will be made and comparison data documented.

Program Input - Parameter Reference Information

The fourth major input to DWSP is Parameter Reference Information. This is a catalogue of information for each substance analyzed on DWSP. It includes parameter name and aliases, physical and chemical properties, basic toxicology, world-wide health limits, treatment methods and uses. The Parameter Reference Information is computerized and can be accessed through the Query function of the DWSP database. An example is shown in figure 1.

Program output - Query

All DWSP information is easily accessed through the Query function, therefore, anything from addresses of plant personnel to complete water quality information for a plant's water supply is instantly available. The DWSP computer system makes relatively complex inquiries manageable. A personal password allowing access into the DWSP query mode in all MOEE offices is being developed by the DWSP group.

Program Output - Action Alerts

Drinking Water quality in Ontario is evaluated against provincial objectives as outlined in the Ontario Drinking Water Objectives publication. Should the reported level of a substance in treated water exceed the Ontario Drinking Water Objective, an "Action Alert" requiring resampling and confirmation is issued. This assures that operational staff, health authorities and the public are notified as soon as possible of the confirmation of an exceedance and remedial action taken. This report supplies a history of the occurrence of past exceedances at the plant plus a historical summary on the parameter of concern.

In the absence of Ontario Drinking Water Objectives, guidelines/limits from other agencies are used. The Parameter Listing System, published by MOEE (ISBN 0-7729-4461-X), catalogues and keeps current guidelines for 650 parameters from agencies throughout the world. If these guidelines are exceeded, the results are flagged and evaluated by DWSP personnel. An "Action Alert" will be issued if warranted.

Program Output - Report Generation

Custom reports can be generated from DWSP to meet MOEE Regional needs and to respond to public requests.

Program Output - Annual Reports

It is the practice of DWSP to produce an annual report containing analytical data along with companion plant information.

FIG.1

PARAMETER REFERENCE INFORMATION

NAME: BENZENE

CAS#: 71-43-2

MOLECULAR FORMULAE: C_6H_6

DETECTION LIMIT: (FOR METHOD POCODO) 0.05 $\mu\text{g/L}$

SYNONYMS: BENZOL; BENZOLE; COAL NAPHTHA; CARBON OIL (27)
CYCLOHEXATRIENE (41)

CHARACTERISTICS: COLOURLESS TO LIGHT-YELLOW, MOBILE, NONPOLAR LIQUID, OF HIGHLY REFRACTIVE NATURE, AROMATIC ODOUR; VAPOURS BURN WITH SMOKING FLAME (30)

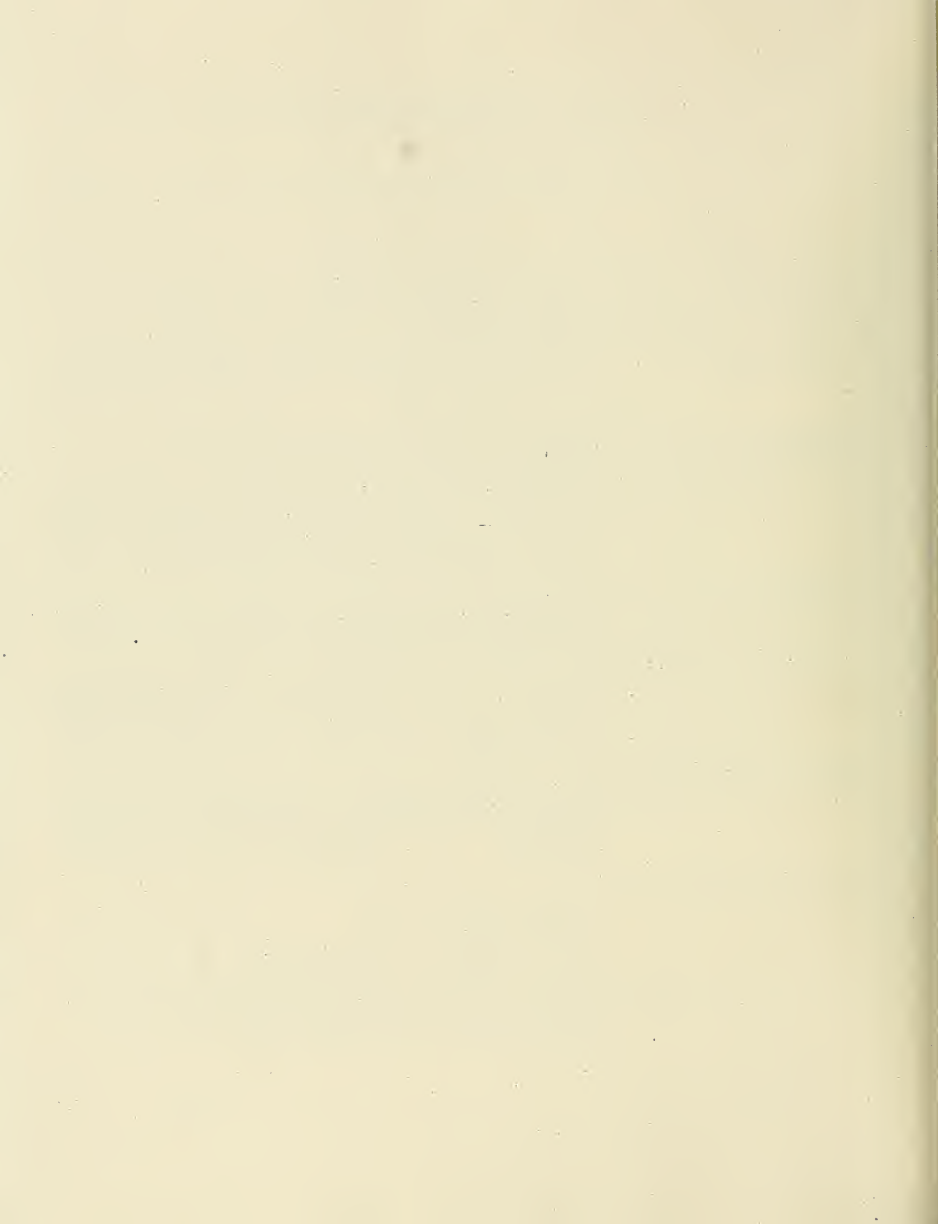
PROPERTIES: SOLUBILITY IN WATER: 1780-1800 mg/L AT 25C (41)
THRESHOLD ODOUR: 0.5 - 10 PPM IN WATER
THRESHOLD TASTE: 0.5 mg/L IN WATER (39)
ENVIRONMENTAL FATE: MAY BIOACCUMULATE IN LIVING ORGANISMS AND APPEARS TO ACCUMULATE IN ANIMAL TISSUES THAT EXHIBIT A HIGH LIPID CONTENT OR REPRESENT MAJOR METABOLIC SITES, SUCH AS LIVER OR BRAIN; SMALL QUANTITIES EVAPORATE FROM SOILS OR ARE DEGRADED RATHER QUICKLY (80)

SOURCES: COMMERCIAL: PETROLEUM REFINING; SOLVENT RECOVERY; COAL TAR DISTILLATION (39); FOOD PROCESSING AND TANNING INDUSTRIES; COMBUSTION OF CAR EXHAUST.
ENVIRONMENTAL: POSSIBLE SOURCE IS RUNOFF.

USES: DETERGENTS; NYLON; INTERMEDIATE IN PRODUCTION OF OTHER COMPOUNDS, SUCH AS PESTICIDES; SOLVENT FOR EXTRACTION AND RECTIFICATION IN RUBBER INDUSTRY; DEGREASING AND CLEANSING AGENT; GASOLINE.

REMOVAL: THE FOLLOWING PROCESSES HAVE BEEN SUCCESSFUL IN REMOVING BENZENE FROM WASTEWATER: GAC ADSORPTION, PRECIPITATION WITH ALUM AND SUBSEQUENT REMOVAL VIA SEDIMENTATION, COAGULATION AND FLOCCULATION, SOLVENT EXTRACTION, OXIDATION

ADDITIONAL PROPERTIES: MOLECULAR WEIGHT: 78.12
MELTING POINT: 5.5°C (27)
BOILING POINT: 80.1°C (27)
SPECIFIC GRAVITY: 0.8790 AT 20°C (27)
VAPOUR PRESSURE: 100 MM AT 26.1°C (27)
HENRY'S LAW CONSTANT: 0.00555 ATM-M³/MOLE (41)
LOG OCT./WATER PARTITION COEFFICIENT: 1.95 TO 2.13 (39)
CARBON ADSORPTION: K=1.0; 1/N=1.6; R=0.97; PH=5.3 (41)
SEDIMENT/WATER PARTITION COEFFICIENT: NO DATA



DWSP SAMPLING GUIDELINE

i) Raw and Treated at Plant

General Chemistry	-500 mL plastic bottle (PET 500) -rinse bottle and cap with sample water three times -fill to 2 cm from top
Bacteriological	-220 mL plastic bottle with white seal on cap -do <u>not</u> rinse bottle, preservative has been added -avoid touching bottle neck or inside of cap -fill to top of red label as marked
Metals	-500 mL plastic bottle (PET 500) -rinse bottle and cap three times -fill to 2 cm from top -add 10 drops nitric acid (HNO_3) (Caution: HNO_3 is corrosive)
Volatiles (duplicates) (OPOPUP)	-45 mL glass vial with septum (teflon side must be in contact with sample) -do <u>not</u> rinse bottle -fill bottle completely without bubbles
Organics (OWOC), (OWTRI)	-1 L amber glass bottle per scan -do <u>not</u> rinse bottle -fill to 2 cm from top
Specific Pesticides (OWCP), (PEOP), (PECAR)	-as per Organics -three extra bottles must be filled
Polyaromatic hydrocarbons (OAPAHX)	-1 L amber glass bottle per scan -do <u>not</u> rinse bottle -fill to 2 cm from top -add 25 drops of sodium thiosulphate
Cyanide (Treated only)	-500 mL plastic bottle (PET 500) -rinse bottle and cap three times -fill to 2 cm from top -add 10 drops sodium hydroxide (NaOH) (Caution: NaOH is corrosive)
Mercury	-250 mL glass bottle -rinse bottle and cap three times -fill to top of label -add 20 drops each nitric acid (HNO_3) and potassium dichromate ($\text{K}_2\text{Cr}_2\text{O}_7$) (Caution: HNO_3 & $\text{K}_2\text{Cr}_2\text{O}_7$ are corrosive)

Phenols	-250 mL glass bottle -do <u>not</u> rinse bottle, preservative has been added -fill to top of label
Radionuclides (as scheduled)	-4 L plastic jug -do <u>not</u> rinse, carrier added -fill to 5 cm from top
Organic Characterization (GC/MS - once per year) (PBVOL), (PBEXT)	-1 L amber glass bottle; instructions as per organic -250 mL glass bottle -do <u>not</u> rinse bottle -fill completely without bubbles

Steps:

1. Let sampling water tap run for an adequate time to clear the sample line.
2. Record time of day on submission sheet.
3. Record temperature on submission sheet.
4. Fill up all bottles as per instructions.
5. Record chlorine residuals (free, combined and total for treated water only), turbidity and pH on submission sheet.
6. No smoking in area of sample location.

ii) Distribution Samples (standing water)

General Chemistry	-500 mL plastic bottle (PET 500) -rinse bottle and cap with sample water three times -fill to 2 cm from top
Metals	-500 mL plastic bottle (PET 500) -rinse bottle and cap three times -fill to 2 cm from top -add 10 drops nitric acid (HNO_3) (Caution: HNO_3 is corrosive)

Steps:

1. Record time of day on submission sheet.
2. Place bucket under tap and open cold water.
3. Fill to predetermined volume.
4. After mixing the water, record the temperature on the submission sheet.

5. Fill general chemistry and metals bottles.

6. Record chlorine residuals (free, combined and total), turbidity and pH on submission sheet.

iii) Distribution Samples (free flow)

General Chemistry	-500 mL plastic bottle (PET 500) -rinse bottle and cap with sample water three times -fill to 2 cm from top
Bacteriological	-250 mL plastic bottle with white seal on cap -do <u>not</u> rinse bottle, preservative has been added -avoid touching bottle neck or inside of cap -fill to top of red label as marked
Metals	-500 mL plastic bottle (PET 500) -rinse bottle and cap three times -fill to 2 cm from top -add 10 drops nitric acid HNO_3 (Caution: HNO_3 is corrosive)
Volatiles (duplicate) (OPOPOP)	-45 mL glass vial with septum (teflon side must be in contact with sample) -do <u>not</u> rinse bottle, preservative has been added -fill bottle completely without bubbles
Organics (OWOC)	-1 L amber glass bottle per scan -do <u>not</u> rinse bottle -fill to 2 cm from top
Polyaromatic Hydrocarbons (OPAHX)	-1 L amber glass bottle per scan -do <u>not</u> rinse bottle -fill to 2 cm from top -add 25 drops of sodium thiosulphate

Steps:

1. Record time of day on submission sheet.

2. Let cold water flow for five minutes.

3. Record temperature on submission sheet.

4. Fill all bottles as per instructions.

5. Record chlorine residuals (free, combined and total), turbidity and pH on submission sheet.

